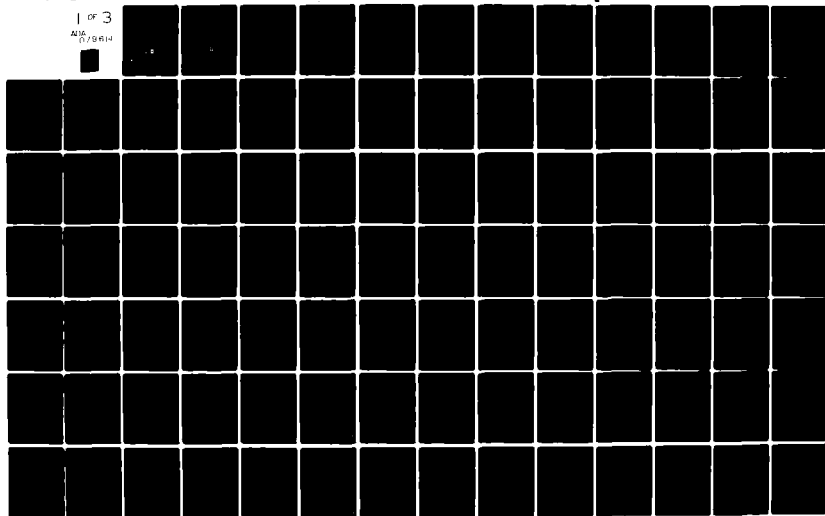


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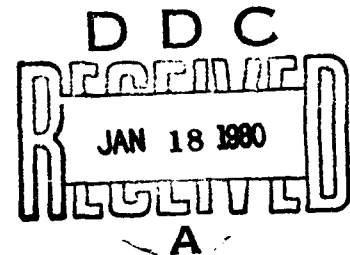
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Quantitative Procedure for Position Identity Definition

FINAL REPORT

Prepared by:

Jack I. Posner
Norvin E. Rader
Richard M. McElhiney
Henry C. Alberts
Edward J. Schmitz
William J. Rouhier



December 1979

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Washington, D.C. 20310
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category. A more credible, regularized, and objective basis for justification of manpower requirements by category, taking full account of managerial, fiscal, and manpower force constraints, is established by the methodology presented in this report.

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EXECUTIVE SUMMARY

This report covers the construction of a decision logic and quantitative methodology to properly designate each active Army position for incumbency by personnel in one of four categories: commissioned officer, warrant officer, enlisted, or civilian. The product of this research is designed to provide the Army with a substantively improved approach to the proper determination of manpower category. A more credible, regularized, and objective approach to justification of manpower requirements by category, taking full account of managerial, fiscal and manpower force constraints is established by the methodology presented in this report.

As a prime basis for quantification of individual position characteristics, the GRC process adapts contemporary factor-comparison job analysis techniques to the allied task of "manpower category analysis." The job analysis methods adapted are already extensively used in both the Federal and private sectors as the fundamental underpinning of individual position pay and grade determination systems. The process first establishes an unconstrained ideal identity for individual positions. As necessary to accommodate real-world constraints (e.g., overseas rotation policies, career progression needs by manpower category, budget and end-strength mandates, availability of selected manpower categories by location), preferred alternative identity is then determined for affected positions.

Recognizing that no fully satisfactory quantitative or analytically based techniques for determining position identity had yet been developed by any Defense Component, the GRC process does not rely exclusively on quantitative methodology but incorporates quantitative techniques whenever applicable and appropriate. In due consideration of the judgmental, policy, and managerial constraints and considerations involved, the GRC methodology combines both logical and quantitative steps as essential parts of the overall position-identity determination process.

The product of this research project is a Position Identification Handbook that provides the prospective user with the required tools in a single document to properly designate each active Army position for commissioned officer, warrant officer, enlisted, or civilian incumbency. The Handbook contains:

- Precise definitions of factors and subfactors to be applied in the process.
- Simple and direct instructions to be followed in application of the methodology.
- Six decision logic tables that lead the technician through the step-by-step process of yes/no alternatives, quantitative scoring, and managerial constraints. The final table provides a summary record of actions leading to the position's identity.

A demonstration test of the methodology was conducted by the Department of the Army, Director of Manpower, Plans and Budget, at Headquarters, US Army Materiel Development and Readiness Command with participation of selected members of the Army staff, major commands, and the General Research Corporation. Results of the demonstration test are reflected in the following conclusions and recommendations.

CONCLUSIONS

- The procedure is sufficiently simplistic to be used by manpower managers at all levels with minimum training.
- Application of the procedure does attain a consistent identity for positions in the Army force structure.

RECOMMENDATIONS

- Complete an expanded and detailed test process to permit final validation and refinement of the position identification methodology prior to Army-wide implementation. The objective of the expanded test procedure would be to ensure that the numerical values assigned to the subfactors used

in quantitative evaluation of position identity have the capability to discriminate adequately among alternative position identities when applied Army-wide. The test could also serve: to confirm application of the method to the Reserve Components, to refine position identification factors/subfactors, to further simplify methods and procedures, and to generally improve these innovative processes.

- Require uniform MACOM compliance with the definitions of factors and rules set forth in the validated Position Identification Handbook to ensure consistent results Army-wide.
- Eliminate apparent redundancies and inconsistencies in the large number of Army formal directives dealing with position identification, thereby promoting uniform understanding and consistent applications in the field.
- Consider selected changes in the present Army approach to the documentation of wartime manpower requirements which may now operate to vitiate the long-standing and fundamental distinction between military and civilian positions.

Detailed discussion of all aspects of this research is contained in the body of this report. A short summary of work accomplished by task is provided in Appendix A.

SECTION 1
DESCRIPTION OF THE PROBLEM

Department of Defense (DOD) Directive 1100.4, dated 20 August 1954, prescribes "Guidance for Manpower Programs" and specifies that "each Service shall seek optimum personnel utilization, maintain a high level of personnel performance and morale, and accomplish missions with a minimum number of personnel." These basic objectives are supplemented by policy statements enunciated in that Directive which establish a fundamental basis for identification (delineation) of individual positions for incumbency by either military or civilian personnel within the DOD components:

Civilian personnel will be used in positions which do not require military incumbents for reasons of law, training, security, discipline, rotation, or combat readiness, which do not require a military background for successful performance of the duties involved, and which do not entail unusual hours not normally associated or compatible with civilian employment.

Indigenous personnel will be utilized to the maximum extent practicable consistent with security and the necessity of maintaining a high state of readiness.

In a "Statement of Personnel policy for Civilian Personnel in the Department of Defense," DOD Directive 1400.5, dated 16 January 1970, embellishes the basic policy statement enunciated above:

The Department of Defense is responsible for the security of our country. Civilian employees share fully in that responsibility. Use of civilian employees affords abilities not otherwise available, assures continuity of administration and operation, and provides a nucleus of trained personnel necessary for expansion in any emergency. Civilian employees shall, therefore, be utilized in all positions which do not require military incumbents for reasons of law, training, security, discipline, rotation, or combat readiness, or which do not require a military background for successful performance of the duties involved.

In addition to other applicable Directives (DOD Directive 1100.9, dated 8 September 1971, and others) the Office of the Secretary of Defense has effectively supplemented and further defined these basic policies from time to time in connection with specific undertakings. On 11 February 1977, the then-Acting Assistant Secretary of Defense (Manpower and Reserve Affairs) provided the following definitive guidance to the Military Departments by memorandum, subject: Use of Military Manpower:

NATIONAL DEFINITIONS FOR MILITARY
UTILIZATION CRITERIA CATEGORIES

Combat/Combat Support: positions, while not now involved in combat or in direct support of combat, would be under a DoD approved contingency plan. Examples include:

- a. combat air crews, Army TOE units, missile crews, ship crews, etc.
- b. Support positions which have tasks which if not performed could cause direct impairment of combat capability. Such positions include security, in-theater logistics support, communications, combat engineering support, and intelligence.

Contingency Augmentation: positions required by deploying units in contingencies but not authorized in peacetime. Examples include aviators, Air Force Prime Beef teams, and the professional complement of military hospitals.

Current Military Background: positions requiring experience more substantial than familiarity with military administrative procedures or similar capabilities reasonably possessed by civilian employees. Examples include:

- a. officers assigned to direct planning, administrative, and support activities in which recent military experience is necessary to insure that the program is directed toward proper military requirements.

- b. Military personnel assigned as trainers conducting essential military training based on practical military experience and current doctrine.

Direct Military Authority: a position which requires the incumbent to exercise military authority over military subordinates under the Uniform Code of Military Justice. In activities staffed by both military and civilian personnel, the military discipline function may be performed by a military superior at a higher level or a duly appointed officer elsewhere in the organization.

Military Training Required: positions requiring training not normally available to civilian personnel. Examples include: explosive ordnance disposal, advanced skill paramedics (Navy independent duty corpsmen, Army Special Forces aidmen) and special weapons controllers.

Statutory: positions requiring a military incumbent by statute. Examples include: military judge advocates and directors of certain DoD agencies.

Tradition and/or Custom

A position in which military are assigned to commands/agencies external to the Service or which are required for wartime augmentation of commands/agencies external to the Service. Such positions include those authorizations currently assigned to activities outside the Service such as defense agencies, other federal agencies, unified commands, and international military headquarters. This category should also be used for positions that support the required mobilization augmentation of commands and agencies outside the Service.

Welfare and Morale

A position in Morale, Welfare and Recreation activities when military command supervision is essential and cannot otherwise be effectively provided.

No Qualified Civilians Available

A position where qualified civilians are not available. Normally, foreign national direct hire and U.S. direct hire categories are interchangeable. In view of this, if the local labor market in the overseas areas cannot supply the required skills the recruitment of civilian applicants from the CONUS must be considered.

Rotation Base Requirements

A position which does not require a military incumbent, but is designated as military to satisfy rotation requirements.

Career Progression Requirements

A position which does not require a military incumbent, but is designated as military to satisfy a career progression requirement.

Other

A position which does not meet any of the above criteria, but is designated as military. Provide a definition of the criteria used to justify the position as military.

The Congress has accorded special emphasis to the need for accurate definitions of and adherence to objective criteria governing the identification of positions for either military or civilian incumbency. In its Report (Number 95-325) accompanying the FY 1978 Appropriation Bill, the Senate Appropriations Committee on page 19 directed the DOD "to submit a special and detailed justification of military versus civilian staffing required for each of the categories within the auxiliary, mission support and central support categories in the manpower planning and programming categories...with 1979 budget justifications." Concurrently addressing essentially the same issues, a Senate Armed Services Committee Print released in September 1977 and based on a Brookings Institution study suggested that:

The ground rules that govern the relative numbers of military and civilian employees in the armed forces are imprecise, and the rationale underlying the determination of the current composition is unclear... Few would doubt that those who directly support the combat forces and thus would be expected to operate in a combat zone

should be uniformed personnel. Even when agreement is reached on this obvious point--that "combat forces" should be composed of military personnel, a question remains: What constitutes the "combat forces?" The distinctions are not as sharp as they appear.¹

Current Department of the Army (DA) directives, policies and procedures adapt and promulgate for Army-wide application the basic policies prescribed for application by the military departments under governing executive and legislative mandates. Chapter 5, AR 570-4, comprehensively enunciates and further defines military/civilian delineation criteria for DA use. It is noteworthy, however, that like its counterpart DOD Directives, AR 570-4 enunciates the governing criteria in narrative terms and in a functional and qualitative context. As in the case of the executive and legislative mandates upon which it is based, DA policy and procedural guidance relies in substantive measure upon the judgment based on experience, maturity, background, and training of the Army practitioners responsible for its prompt, effective and consistent application. Recognizing this degree of reliance upon the individual practitioner's diligence and judgment, DA has published useful complementary tools in the form of other DA directives designed to contribute to the Department's criteria application objectives.

Within the military manpower category, position identification criteria clearly distinguishing between commissioned officer, warrant officer and enlisted incumbency are at least as critical to the most effective functioning of the active force as are the basic military versus civilian standards first summarized above. AR 310-49 affords detailed coverage of these military subsets, with particular emphasis upon the officer category. Additional exhaustive policy and procedural guidance is contained in AR 570-2 and in DA staffing guides in the 570 series.

¹Committee Print (95th Congress, 1st Session), Shaping the Defense Civilian Work Force, Committee on Armed Services, United States Senate, U.S. Government Printing Office, 1977, p. 55.

In fairness, it must be added here that a number of other DA policy and guidance documents either directly or peripherally address the matter of position delineation by officer, warrant officer, enlisted and civilian category; it cannot be said that each of these official pronouncements is completely uniform or precisely consistent in approach and content. That aspect aside, it is apparent that the bulk of these guidance and policy materials are couched in a narrative functional and qualitative context. They rely for their effective implementation upon the best objective judgment of their users. Inevitably, degrees of subjectivity become a part of that judgmental process. In such matters, degrees of subjectivity tend to vary in inverse proportion to the degree to which concise quantitative methods are applied. That principle has been well demonstrated through the application of contemporary quantitative analytic techniques to such related issues as the accurate, consistent and uniform determination of grade and pay levels by position in both the public and private sectors.

Though it cannot be asserted that the use of quantitative methods will obviate the need for individual judgment -- nor should it¹ -- a fundamental need exists for a simple, consistent, objective quantitative method of properly identifying each active Army manpower position for commissioned officer, warrant officer, enlisted or civilian incumbency. That need is predicated upon the overriding demand within the Executive and Legislative Branches for equally consistent, competent, understandable and provable methods of justifying armed forces manpower -- a costly "commodity" in short supply. That demand faces each of the military

¹On questions of the exercise of judgment in manpower management, it is appropriate to take note of a recent comment by the House Armed Services Committee: "The operations research and systems analysis techniques which have characterized the Department of Defense approach to the management and decision-making process for the volunteer force are worthwhile and produce objective data which can assist the policy maker. However, the reliance on this type of analysis can be overdone and obscure some important facts in a subject area as subjective as manpower and personnel management unless it is blended with a judgment of aspects of the issue less conducive to precise measurement and categorization." See House of Representatives Report Number 95-1118 (95th Congress, 2nd Session), Department of Defense Appropriation Authorization Act, 1979, 6 May 1978, p. 35.

departments. It is not unique to the Department of the Army, but did receive explicit recognition in Chief of Staff Memorandum 76-570-62, subject: Determination of Officer Requirements, dated 3 December 1976:

This memorandum directs the development of an improved system to quantify and display officer requirements, a comprehensive review of the policies and procedures generating those requirements, and a review of officer position requirements in selected activities.... The criteria which differentiate positions between commissioned, warrant, enlisted or civilian are key to determining officer requirements....

The objective of the GRC study as specified under the current contract "is to devise an improved, quantitative methodology for establishing each position in the (active) Army's structure properly as commissioned officer, warrant officer, enlisted or civilian." Manpower managers currently lack precise quantitative criteria for use in position delineation on a more exact, objective basis. This GRC study was predicated on certain explicit assumptions which help to define the parameters of the problem:

- This study shall address military and civilian (including foreign national civilian direct and indirect hire) positions in the active Army--as distinguished from the Reserve and National Guard components--but specifically excluding contractor and nonappropriated fund functions, resources or positions in the Army structure.

- An objective review of TOE (as well as TDA) positions in all categories--i.e., combat as well as combat support and combat service support--should be undertaken if the study results are to be fully objective and credible.

- Because the study is funded at less than three man-years of effort under the current contract, it will not be possible to assess every position/function within the active Army. The study effort is designed to apply the devised quantitative procedures for position identity definition to a representative sample of positions currently in the active Army force structure.

• To date, no fully satisfactory quantitative technique for determining position identity has been developed by any Defense component. Recognizing this challenge, and in due consideration of the judgmental, policy and managerial considerations involved, GRC has developed a conceptual methodology which combines both decision-logic and quantitative steps as part of an overall identity-determination construct. While the GRC study effort will not rely exclusively on quantitative methodology, quantitative elements will be incorporated whenever proven and appropriate.

• Positions as opposed to incumbents (or "spaces" as opposed to "faces") in the active Army structure constitute the basic building blocks of the study effort, as fully discussed in the following paragraphs.

Though addressed exclusively to the issue of Federal civilian employee pay/grade classification, the following quotation from the proceedings of the 1931 Personnel Classification Board aptly articulates the proper focus of the current research:

The allocation of a position is based upon the duties actually performed in that position by its occupant and not upon what the occupant may be able to do in a different assignment, but actually does not do in his present position.... Accordingly, the correct viewpoint is that positions are to be allocated on the basis of their duties and responsibilities irrespective of the qualifications possessed by the incumbent....¹

Our analysis is concerned with positions--as distinguished from the individuals who fill those positions. It is focused upon the duties which must be performed in those positions, and the responsibilities which may be exercised. It is clear that the attributes of individual

¹U.S. Personnel Classification Board, Closing Report of Wage and Personnel Survey, House Document 771 (71st Congress, 3rd Session), 1931, p. 141.

incumbents may affect quite directly the way those duties and responsibilities are executed. Our purpose, however, is not to determine what a given individual may be able to do in a given position or in alternative assignments. Rather, our purpose is to regularize the method of delineating individual positions by category (i.e., commissioned officer, warrant officer, enlisted, in-service civilian).

Because the ultimate objective of our research was the development of an improved category analysis methodology, the breadth of our focus upon duties and responsibilities was substantively broader than the individual job analysis and classification process contemplated in the above quotation. That is, our analyses took account of duties, responsibilities, and related factors peculiar to the aggregation of positions which constitute each category.

Among the most important of these category characteristics were "condition of employment" factors (i.e., potential exposure to hostile fire, statutory or Executive Order or force-of-law regulatory mandates governing position categorization, comparable national agreements or union or interagency commitments and mandates, etc.) applicable to given positions. They are, effectively, the counterparts of individual position-associated "level of employment" factors (i.e., level of executive and managerial skills required, technical skills and knowledge needed, level of position within the organization, etc.)

Of comparable import are category characteristics generated by resource constraints imposed upon Departmental manpower. Perhaps the most evident of these are the explicit limitations having their genesis in law. They include budget end-strengths by manpower category, either prescribed by Congress in annual Defense Appropriation Authorization Acts, or allocated by Executive Branch authorities based on such enactments (e.g., Secretary of Defense apportionment to each military service of a share of the aggregate annual Federal civilian end-strength ceiling prescribed by the Congress). Comparable permanent law constraints apply

as well (e.g., the 1 percent and 2 percent active force limits upon enlisted grades E-9 and E-8, respectively, prescribed in Title 10, United States Code).

Perhaps less explicit and visible, but equally compelling, are the related force structure and force balance constraints imposed upon management. While many of these constraints relate directly to the individuals who fill active Army positions, and not exclusively to the functional job demands of the positions they occupy, our analyses of these structure and balance issues was focused upon groups of positions or the aggregation of positions which constitute each category--as distinguished from individual incumbents. For example, avoidance of uneconomic or unacceptable-length individual overseas tours for military members depends upon a proper numerical balance of domestic and overseas positions, by function. Adequate career progression rates for the individual member depend upon a proper numerical balance of positions by skill and grade.

In sum, these position balance constraints within categories may materially alter the character a given position would otherwise possess if assessed exclusively in terms of the relatively narrower functional demands of its unique job tasks alone. For purposes of our analyses, the "unconstrained" assessment based on job tasks alone will result in delineation of the ideal identity of individual positions; where applicable, the broader assessment, taking full account of mandates and limitations which constrain management decisions governing position delineation, will result in selection of the preferred alternative identity of individual positions.

In either case, the focus of our research and analyses was upon identification and categorization of the position, not upon the individual incumbent.

This elaboration of the problem addressed in the course of the current research confines itself to "target definition" issues. Selected

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SECTION 2
CURRENT POSITION IDENTIFICATION METHODOLOGY

The preeminent manpower objectives of the Department of Defense (DOD) and the Department of the Army (DA) are to assure that sufficient trained personnel are available upon mobilization to man the Armed Forces and sustaining structure; and to assure optimum personnel utilization accomplishing missions with a minimum number of people. To meet these manpower objectives, there are available to DA:

- Full-time active duty military personnel
- In-service Federal civilians employed by DA at domestic and oversea locations, as well as foreign national direct and indirect hire civilians employed abroad
- Civilians employed by DA nonappropriated fund Federal instrumentalities
- Members of the Army Reserve and the Army National Guard in the Selected, Ready, Standby and Retired Reserve
- Private sector firms, organizations and individuals available under contract to perform services or provide equipment, materials and supplies.

As noted in the preceding section describing the problem and outlining the objectives of this research effort, our study is limited exclusively to positions filled by the military and civilian members referenced in the first two manpower elements defined above.¹ Some clarification of the depth of study coverage to be afforded the positions embraced within those two elements based upon current departmental practice is in order.

¹Exclusion of National Guard and Reserve Forces positions from this study does not result in exclusion of Reserve Technician (AR 140-315) and National Guard Technician (Title 32, United States Code) positions. The latter are a part of the active Army force structure.

Simply stated, the positions which are the prime focus of the study are those which:

- Are a part of authorized Army "force structure" manpower (excludes "individuals" manpower authorized for transients, patients, prisoners, holdees, students, trainees, and cadets within the active Army)
- Are included in the "strength levels" prescribed in modification tables of organization and equipment (MTOE) (i.e., strength level 1 (100%) or strength level 2 (90%), etc.)
- Are included in the "authorizations" column as distinguished from the "requirements" column of tables of distribution and allowances (TDA) units (i.e., the authorized manpower levels to attain unit capabilities currently prescribed by competent authority; as distinguished from higher or "full" capabilities, based on an approved manpower survey, which may be reflected by the manpower levels incorporated in the TDA requirements column).

None of the foregoing is intended to imply that each and every position and function in the current active Army force structure has been/will be analyzed in the course of this study. Rather, as previously noted, the constrained resources available to support the study effort were applied to a representative sample of positions currently in the active Army force structure. Successful application to that sample of the devised quantitative procedures for position identity definition should, with minimal modification, allow extension of the final approved quantitative methodology for Army-wide application.

To assure that there is no misunderstanding of the "individuals" manpower alluded to above and excluded from the Army "force structure" and from this study, the reader is referred to Table 2.1. That portrayal of the aggregate manpower composition of the active forces of the several military departments, arrayed for the Congress by Defense Planning and Programming Categories as well as by the 10 Major Defense

TABLE 2.1
PROGRAM ELEMENTS: THE BUILDING BLOCKS

DEFENSE FUNCTIONS AND PROGRAMS CATEGORIES	MAJOR DEFENSE PROGRAMS									
	1 STRATEGIC	2 GLOBAL PROBLEMS	3 GLOBAL COMBAT	4 GLOBAL COMBAT	5 GLOBAL COMBAT	6 GLOBAL COMBAT	7 GLOBAL COMBAT	8 GLOBAL COMBAT	9 GLOBAL COMBAT	10 GLOBAL COMBAT
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DEFENSE ACTIVITIES	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT	GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT GLOBAL COMBAT
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Source: Department of Defense, Manpower Requirements Report for FY 1979, submitted to Congress February 1978, p. XVII-12.

Programs, graphically depicts the "individuals" manpower elements as compared to the "force structure" manpower elements. In each case, the "individuals" subsets are either already quantified by category in law (see 10 USC 4342 on cadets) or are a quantitative function of the aggregate number of military members apportioned annually to the Military Departments by OSD based on the content of the Defense Appropriation Authorization Act and the Defense Appropriations Act. The manpower authorizations in each of these "individuals" subsets are the result of application of quantitative techniques at varying levels of sophistication. There is no question of the proper category (i.e., commissioned officer, warrant officer, etc.) in which the manpower authorized as a result of those computations belongs. Neither is it a part of our study charter to determine the accuracy or relative merit of those computations. Accordingly, they are not further considered in the course of this research effort, and are accepted as given.

Similarly, our study charter does not include a mandate to assess the MTOE "strength level" or the TDA "authorizations" column currently authorized for staffing by competent DA authority. We will generally accept those "strength level" and "authorizations" column prescriptions as given, insofar as they establish the number of positions and the skills required for the MTOE and TDA units concerned. With respect to the proper delineation of those positions as either military or civilian, it will be recognized that the man-hour availability factors applied in determining the number of positions required could have a very direct bearing upon the category delineation decision. For example, in the case of MTOE units, current DA practice is that:

- "TOE unit manpower requirements are developed on a 12-hour shift basis." (Paragraph 4-3, DA PAM 570-4, 3 April 1974,)
- "...the total available time is...365 days or 4,380 man-hours." (Paragraph 2-7a, AR 570-2, 22 July 1969, as changed.)
- Total available time is converted to productive, nonproductive and indirect productive categories in consonance with TOE manpower authorization criteria (MACRIT) in AR 570-2.

The study assumption will be that the results of these practices accurately reflect average individual man-hour availability in wartime. If that assumption were not borne out by the facts in any given case, however, there could be a direct impact upon the designation for military incumbency of affected MTOE positions. For example:

- If the wartime man-hour availability factor were understated for a given unit, the number of military positions listed in the MTOE as required by function within the unit in wartime could be over stated, with at least two possible results:¹
 - Assuming the overstated positions were not required for peacetime garrison operations, they could be deleted from the MTOE and realigned for use elsewhere.
 - Assuming the overstated positions are required for peacetime garrison operations, they could be deleted from the MTOE and realigned to a TDA augmentation document.
 - In either case, absent compelling alternative reasons for military incumbency, it is conceivable that the realigned positions could be considered for civilian incumbency on the basis that they are not required in wartime in the MTOE unit and function concerned.
- Conversely, if the wartime man-hour availability factor were overstated for a given unit, the number of military positions listed in the MTOE as required by function within the unit could be understated, with at least two possible results:¹
 - Since the understated positions would be required for wartime operations, they could be added to one or more of the MTOE strength levels of the unit concerned.

¹The importance of accurate man-hour availability data was emphasized in GAO Report B-133370, "continuous Management Attention Needed for Army to Improve Combat Unit Personnel Requirements," dated September 5, 1978.

- If the decision were made to add the understated positions to the MTOE strength level currently authorized for staffing, those positions might be realigned from another active Army source and allocated to the MTOE unit concerned.
- In either case, either the active or the reserve mobilization resource balance of the Department by manpower category could be affected to accommodate the position realignments involved.

By way of further definition of DA practice and the methodology employed in this study, there are discussed in later portions of this report the procedures used in allocating positions to units, organizations or agencies outside the Department of the Army. These position requirements and their category delineation are normally based upon negotiation and mutual agreement with lateral or higher authority; or are effectively predicated upon direction received from higher authority. There is no question that the allocation of these positions outside the Department imposes constraints upon DA manpower managers. Their allocation further limits the already scarce manpower resource which Army managers have available to satisfy position requirements within the "internal" Army force structure. They can, of course, aggravate as well the already stringent existing ceilings applicable to given manpower categories, civilian and military. Whatever their impact, however, it seems clear that any needed changes in the delineation by category of Army positions allocated to activities outside the Department will be heavily dependent upon the concurrence of lateral or higher authority. The likelihood of concurrence should be greatly enhanced by demonstrated excellence in the position delineation arena within DA, as a model for application to positions outside DA. Accordingly, prime emphasis in the course of this study is being placed upon positions within the Department.

The Congressional "Least Cost" Mandate

It is the sense of Congress that the Department of Defense shall use the least costly form of manpower that is consistent with military requirements and other needs of the Department of Defense. Therefore, in developing the annual manpower authorization requests to the Congress and in carrying out manpower policies, the Secretary of Defense shall, in particular, consider the advantages of converting from one form of manpower to another (military, civilian, or private contract) for the performance of a specified job. A full justification of any conversion from one form of manpower to another shall be contained in the annual manpower requirements report to the Congress required by section 138(c) of title 10, United States Code.¹

Congress annually reviews its quoted 1974 cost mandate in hearings on the President's Budget request. In due course, it annually enacts manpower authorizations in the form of end-strength aggregate ceilings on active force military and civilian manpower. The active force military ceilings are normally prescribed as a total military end-strength, by Military Department, and are contained in annual Department of Defense Appropriation Authorization Acts. A single civilian ceiling has in recent years been prescribed for DOD in the same Act, with apportionment authority vested in the Secretary of Defense.

The composition by number and grade of each manpower category (commissioned officer, warrant officer, enlisted, civilian) is addressed in the course of legislative hearings, as well as in budget back-up material formally submitted to interested committees in support of the budget request. Concurrently, cost data by manpower category and grade

¹Section 502, Department of Defense Appropriation Authorization Act, 1975 (Public Law 93-365), August 5, 1974. The section is incorporated in the annotations to 10 USCA 138.

are regularly reviewed by the Congress.¹ From the other point of view of emoluments paid to individual members, both the Congress and the Executive Branch on an annual as well as quadrennial basis seek to assure reasonable pay and "comparability" for Federal civilians and military members.²

It should be noted that the 1974 Congressional "least costly... manpower" edict quoted above was enunciated at a time when the full impact of Federal pay equalization was being felt, and when the controversy over use of civilian contract service alternatives to performance in-service by Federal employees was rising to a crescendo. That controversy culminated in a partial FY1978 contract service moratorium, pending submission of a joint report on the subject to the Congress by the Office of the Secretary of Defense (OSD) and the Office of Management and Budget (OMB).³ Manpower "mix" in general, and particularly in-service to contract service conversions of DOD functions based on relative cost, have been items of intense Congressional interest in recent years. Prior to the FY 1978 contract moratorium, that interest had been sparked by relatively wide swings in the percentage basis established by OMB for use in computing cost to the Government of retirement and insurance fringe benefit entitlements of Federal civilian employees:⁴

¹ See, for example, Section XIV, Cost of Manpower, Manpower Requirements Report for FY1979, Department of Defense, February 1978.

² See, for example, Report of the President's Commission on Military Compensation, GPO, April 1978.

³ See Section 852, Department of Defense Appropriation Act, 1978 and Section 809, Department of Defense Appropriation Authorization Act, 1978.

⁴ See Hearings before the Post Office and Civil Service committee on Employee Ethics and Utilization, U.S. House of Representatives, July 1977.

	<u>FY 1976 and Earlier</u>	<u>Change Effective October 1976</u>	<u>Change Effective June 1977</u>
Retirement	7.14%	24.7%	13.1%
Health Insurance	1.00%	3.5%	3.5%
Life Insurance	<u>0.30%</u>	<u>0.5%</u>	<u>0.5%</u>
	8.44%	28.7%	18.1%

In a revision to OMB Circular A-76, Subject: Policies for Acquiring Commercial or Industrial Products and Sources Needed by the Government, dated March 29, 1979, these rates were further revised to require a 20.4% retirement factor and a combined health and life insurance factor of 3.7%. As will be seen in subsequent sections of this report, proper selection between the military and civilian personnel categories for the performance of commercial/industrial-type product and service functions is an important factor in the position identification process. However, as previously noted, the contract alternative to in-service civilian performance is excluded from our study. Accordingly, the contract alternative issue, and the associated cost comparison factors, will not be treated further in any detail in this report.

The cost of in-service personnel in both the military and civilian categories, on the other hand, does have a bearing on our study, however indirect. Whether it is more or less costly to employ military or Federal civilian manpower in the performance of a given function is, of course, a matter of continuing interest. Alternative methods have been used from time to time in making cost comparisons between military and Federal civilian performance. The results have tended to vary based on such factors as levels of skill involved in performance of the functions concerned, and the comparative cost factors selected for inclusion in one's analysis (e.g., Social Security payments by military members; contributory retirement payments by Federal civilians; civilian gross pay versus military pay, allowance, and tax advantage factors).¹

¹ Confirming the prior "lack of good measures for making cost comparisons," a recent study advances a measurement technique demonstrating "the average costs for military and direct-hire civilian personnel are within a few hundred dollars of one another." Richard V. L. Cooper, Military Manpower and the All Volunteer Force, Rand Corporation, September 1977, pp. 295 and 301.

In the final analysis, military and civilian category cost factors of key concern within both the Legislative Branch and the Executive Branch have been related primarily to development of equitable compensation and retirement systems such as those addressed in the 1978 Report of the President's Commission on Military Compensation; or initiatives such as shifting to a military retirement accrual budgeting system, and reform of the Federal wage system for Wage Board employees, both of which are addressed in the DOD Manpower Requirements Report for FY 1979. While cost must be and is a matter of continuing concern and consideration at every echelon within the Department, the category delineation decision for in-service military and civilian members is now largely driven by the characteristics of the job itself and the environment in which it must be performed. Considerations of cost and "affordability" properly play a vital role, probably the vital role in constructing and maintaining the aggregate national military capability. But it is the individual position, its demands, and the environment in which its responsibilities are carried out which now drive Departmental policies and procedures relating to the delineation of the proper manpower category for individual positions. These are the factors which, in turn, largely drive the position delineation decision in the field. This section of our report is devoted to their description and a weaving together of the cogent directives and publications on which they are based.

SELECTED DA MANPOWER MANAGEMENT PROCEDURES

A summary description of selected manpower management functions and procedures as they are carried out in the Army today will enhance our subsequent synthesis of position delineation criteria. This summary is based in part upon information derived from staff and field interviews conducted by the GRC Study Team in Army field units in the Washington metropolitan area, and telephonic discussions with manpower managers and force development personnel. While frequent reference is made to published directives, our description is directed toward a mechanical examination of steps that are taken, and what the manpower control officers in the field whom we contacted believe is the current procedure for determining position identity.

The basic directive covering manpower management functions in the US Army is AR 570-4, "Manpower Management," 17 November 1975. This regulation sets forth objectives, principles, and responsibilities for manpower management and utilization. Procedures for accomplishing these functions throughout the Army are promulgated in DA Pamphlet 570-4, "Manpower Procedures Handbook," 8 April 1974. Annex A to that pamphlet provides a listing of other official publications which direct, limit, or establish policies regarding use of military and civilian manpower. The listing is not all-inclusive; it is intended to serve as a guide to manpower control officials in locating possible sources of information governing the use of manpower in specific functional areas. The listing is, however, symptomatic of the multitude of directive and guidance/reference material to which the manpower manager is expected to be responsive. It is true that, almost without exception, these publications refer to AR 570-4 as the central source of policy guidance. As indicated previously on page 1-6 of our "Description of the Problem," however, it cannot in fairness be said that each of these directives is completely uniform or consistent in approach and content.

Manpower Allocation and Documentation

Prior references have been made to the role of Congress in contributing to the foundation upon which utilization policy in the Armed Forces is based. In the final analysis, it is the Congress which establishes the fundamental parameters within which the manpower manager must work in the near term in delineating positions by category. That is, the Congress annually specifies how many military and civilian members the Armed Forces may have. For the active forces, and subject to certain apportionment authorities vested in the Secretary of Defense, the Military Departments are effectively limited to manpower ceilings expressed in terms of both strength and dollars. In the case of military personnel, appropriations are pegged to the numbers of commissioned officers, warrant officers, enlisted members and cadets requested in the President's budget and approved by the Congress.

The allocation of manpower authorized and apportioned to DA is a function of the Office of the Deputy Chief of Staff for Personnel (ODCSPER), specifically the Directorate of Manpower Plans and Budget (DAPE-MB). The Allocation and Documentation Division (DAPE-MBA) of the Directorate distributes military and civilian manpower via Program Budget Guidance (PBG) to MACOMS and to certain agencies of the Army Staff; and via Manpower Voucher (MV) to about 27 other agencies such as smaller field operating agencies, joint activities and military missions. While the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) formerly exercised proponent responsibility for certain manpower "spaces" as distinguished from personnel "faces" functions, these manpower and personnel functions were recently consolidated within ODCSPER. The Directorate of Manpower Plans and Budget (DAPE-MB) now exercises primary HQDA staff responsibility for both manpower allocation and manpower delineation/utilization by category.

Military manpower is allocated by military identity (commissioned officer, warrant officer, enlisted). Civilian manpower is allocated by U.S. and foreign national direct hire, and indirect hire components. Receiving commands and agencies have the fundamental responsibility, within the totals allocated, for reallocating and balancing their authorized manpower among the Modified Table of Organization and Equipment (MTOE) and Table of Distribution and Allowances (TDA) units under their jurisdiction. MTOE and TDA documents incorporated in The Army Authorization Documents System (TAADS) contain "required" personnel strengths to support the assigned missions of Army units at wartime or prescribed levels of capability; and "authorized" personnel strengths which accommodate to the realities of manpower resource availability. All commands, staff agencies and activities preparing or approving MTOE/TDA "authorization" documents are responsible for compliance with policies governing establishment and categorization of positions.

The general responsibility for functions of manpower management in the field after allocation of manpower resources by HQDA to using

activities, is charged by paragraph 1-7d(4), AR 570-4, to commanders of MACOMS. The management of selected specialized or professional manpower resources is, however, charged to certain top functional managers (i.e., the Chief of Engineers and the Surgeon General for their staff support and field operating agencies; the Chief, National Guard Bureau for the National Guard Technicians appointed under Title 32 of the U.S. Code, and for his subordinate staff support agencies). Certain manpower management functions are effectively further delegated to unit or organizational levels where "authorization" documents are prepared.

Commanders or their designated agents are charged with continuous evaluation of manpower requirements to ensure that staffing is in consonance with mission priority. They are to review and recommend revision of TDA and MTOE documentation in accordance with AR 310-49, "The Army Authorization Documents System," 10 June 1975, as changed, to ensure that the minimum number of positions required to perform assigned missions is documented in the appropriate grades and skills. They are also to recommend changes to TOE in accordance with AR 310-31, "Management System for Tables of Organization and Equipment," 2 September 1974, when manpower economies can be effected. In reviewing their operations, commanders are to consider management improvement techniques or services to determine where better manpower utilization may be achieved. Manpower made available through improved management practices is to be used in accordance with all directives affecting manpower utilization. Changes to an organization may be initiated by unit commanders, higher headquarters-directed actions (change in mission, workload, or manpower levels) and/or may be the result of an approved manpower survey.

There is prevalent in these DA mandates a philosophy and a methodology that is intended to give to the commander latitude and flexibility in structuring the command work force. This approach does, however, inherently accept the possibility of more or less variation in the execution of functions of manpower management in different organizations.

POSITION IDENTIFICATION/DELINEATION FACTORS

The balance of this section is dedicated to a description of current position identification methodology as practiced in the Army. It is based upon the collection and analysis of relevant reference materials completed in the "Review and Analysis" tasks under the current contract effort. Our synthesis is designed to:

- Describe current DA position identification methodology in terms of category delineation factors.
- Define those factors:
 - Initially in terms of the relevant reference materials and directives governing each
 - Ultimately in concise language synthesized from the initial narrative definition
- Place those factors in rank order of their relative importance in driving the position identification/delineation decision.

We have previously noted that AR 570-4 is the "basic" manpower management directive. Chapter 5, "Manpower Utilization," focuses on position identification and delineation of military and civilian positions.

We have also previously noted the existence of many other relevant DA references and directives. Their abundance, diversity, and variety led us to the conclusion that the structure and order of factors/issues addressed in Chapter 5, AR 570-4, being well known to the Army manpower management practitioners to whom this report will be of greatest interest and use, offered a logical and familiar framework for our detailed description of category delineation factors.

Accordingly, our succeeding paragraphs are preceded by a reference or verbatim excerpts from Chapter 5, AR 570-4. Each is followed by a narrative description citing references and directives applicable to

the issues addressed in the opening excerpt. For clarity and conciseness, the ensuing discussion includes verbatim extracts of only those passages or portions thereof which have important direct or peripheral bearing on position delineation policy.

"Assistance" vs. "Direction" in Manpower Utilization

"17 November 1975

AR 570-4

**CHAPTER 5
MANPOWER UTILIZATION**

5-1. Purpose. The purpose of this chapter is to assist commanders in the proper utilization of manpower and in the development of manpower authorization documents. " (Emphasis added)

We have previously alluded to a degree of latitude and discretion extended to Army commanders in determining the proper manpower category for positions allocated to them. The practice is reflected in the tone and tenor of governing Army regulations and associated publications. They tend to avoid the use of explicitly "directive" language. In lieu, their thrust is that the governing Army publications enunciate general policy, while concurrently providing "guidance to assist" commanders in delineating individual positions. As examples:

- Staffing Guides (see DA PAM 570 series) provide "guidance" as an "aid in staffing...and in designating military and civilian positions."
- Appendix B, Position Authorization and Delineation Criteria, AR 310-49, begins with a brief description of commissioned officer position attributes, follows with a listing of

warrant officer position criteria, and specifies that positions which meet all or most of the latter "may be considered for classification as warrant officer positions" (emphasis added).

While the Manpower Procedures Handbook (DA PAM 570-4, 8 April 1974) implementing AR 570-4 also specifies in its foreword that the Handbook is for general information and guidance, we do not imply by these examples that OSD or other-service regulations are always substantially more "directive" in tone and content. There are, however, some notable differences in tone and content.

- DOD Directive 1100.4, Guidance for Manpower Programs, 20 August 1954, does use the word "guidance" in its title, and repeat that term and the phrase "general manpower policies" in its statement of purpose. On the other hand, "directive" language is frequently used in the text (e.g., "civilian personnel will be used in...", see paragraph IV, DODD 1100.4) as well as in the text of related regulatory documents treating the matter of manpower utilization (i.e., "civilian employees shall, therefore, be utilized in all positions which...", see paragraph IVA, DODD 1400.5, Statement of Personnel Policy for Civilian Personnel in the Department of Defense, 16 January 1970).
- Chapter 1, Manpower Utilization, of Air Force Manual (AFM) 26-1, 8 May 1973, as amended, deals with "the policies and procedures for determining which forms of manpower should be used...." In establishing when to use specific categories of manpower, the directive typically uses the phrase "military personnel will be used" or "civilian manpower is used" (see paragraphs 1-3b and 1-4b, AFM 26-1; emphasis added).

It should also be noted that the relatively few formal, numbered DOD issuances (DODD 1100.9, 1400.5 and 1400.6) prescribing rules for manpower category delineation, use consistent if not identical language in addressing the same or comparable issues. In the Air Force, AFM 26-1

is, essentially, the single source of manpower utilization direction for the Department. These circumstances tend to encourage consistency in the application of admittedly complex and largely subjective policies/procedures.

While time and resource limitations preclude an assessment in any depth, we should note here in passing that responsibility in the Navy for determining whether new positions should be filled by officer, enlisted, or civilian personnel appears to be decentralized. As new weapons systems are developed, the responsible "program manager" determines applicable manpower requirements of that system. Barring budgetary constraints, these manpower needs can become part of the Navy's program. The responsibility to accommodate budgetary constraints, when imposed, has in past been broadly allocated for absorption by principal sponsors within the Navy program.

In the course of fact-finding discussions with HQ DA representatives and Army unit manpower representatives at and below middle management levels, in the Washington, D.C., Metropolitan area, the GRC study team was repeatedly advised that greater uniformity and consistency of position delineation criteria in a principal source document or documents would be highly desirable. Salutory outcomes were postulated in the form of more regularized and consistent application of governing policies and procedures.

Military vs. Civilian Position Delineation.

AR 570-4

"5-2. General utilization policies. a. ***

b. Manpower requirements consist of a combination of military personnel and US civilian and foreign national civilian employees. Each of these categories of manpower has unique qualities which, when integrated into an efficient and cohesive team, are necessary for the successful performance of the mission of the

Department of the Army. Military personnel furnish the capability to conduct, control, and support combat operations. US civilian personnel make up the major part of the supporting workforce, provide essential stability, continuity, and a number of skills not normally found among military personnel. Foreign national civilian personnel, in varying degrees, provide the same qualities as US civilian personnel; the extent of their employment depends on their anticipated availabilities during hostilities, the availability of skills, security restrictions, the objective of reducing US military and US citizen civilian presence overseas, and the impact on the international balance of payments. The employment of civilians in all feasible positions reduces the requirement for a large military force and permits assignment of the maximum number of military personnel to combat and combat support TOE units."

"Allocating and balancing manpower space authorizations among MTOE and TDA units by identity i.e., officers, warrant officers, enlisted personnel, direct hire U.S., direct hire foreign national, and indirect hire" is the explicit responsibility of "commanders of major Army commands/agencies;" and they are explicitly charged as "responsible for...preparing MTOE and TDA" (see paragraphs 2-8 and 2-9, AR 310-49). In carrying out those direct responsibilities and, specifically, in allocating manpower by position identity, it seems quite clear that perhaps the most fundamental factor applicable to all manpower categories and directly influencing manpower managers at all levels, is the overall number of military and civilian manpower authorizations available in the first place. In the first analysis, the ultimate DOD goal is to "accomplish approved national military objectives with a minimum of manpower so organized and employed as to provide maximum effectiveness and combat power" (paragraph II, DODD 1100.4; emphasis added). For the Army manpower manager operating under that mandate, "the primary consideration in the utilization of manpower and the establishment of positions is the responsible and successful execution of the assigned military mission using the minimum number of personnel" (paragraph 5-2a, AR 570-4;

emphasis added). In the final analysis, then, "in determining how to make the best possible use of manpower resources, the commander is governed by the number of manpower spaces (by military and civilian identity breakout) authorized for an activity or unit in the manpower directive or voucher" (paragraph 3-5a (2), AR 310-49; emphasis added).

Thus, the availability or, conversely, the lack of manpower resources by category, function, or location can be a most influential (at times, the most influential) factor in the position identity process. Against that background, it is clear that:

- Current and future Army position delineation actions are and will be directly influenced by the basic factor of manpower resource availability.
- Current and future position delineation methods and systems must take account of the fact that:
 - An "ideal identity" exists for each Army position--military or civilian--based upon the tasks inherent in the position.
 - An "alternative identity" may have to be assigned to selected Army positions based upon the fundamental issue of manpower authorizations available by category.
 - A "preferred alternative identity" may have to be determined in such cases, and should be based upon objective assessment of manpower resource availability by category, the characteristics of each position being considered, and the ultimate impact of the selected alternative identity upon the manpower categories affected.

The practical need for alternative position identities is well recognized in applicable directives. Joint Chiefs of Staff (JCS) Pub. 3, Volume II, 31 August 1973, specifies in paragraph 030201 e (2) "certain positions otherwise suitable for civilian incumbency will be

designated as military when required to fulfill specific military personnel or mission requirements"; for example, "in order to provide military personnel an equitable share of duty in the United States between periods overseas or aboard ship." In the same vein, OMB Circular A-76 recognizes the alternative use of Federal civilian or military personnel in some positions producing commercial/industrial products/services for which the Government would otherwise normally rely on the private enterprise system when, for example "the activity is essential for training in those skills which are exclusively military in nature"; or when justified "to ensure a ready and controlled source of technical competence and resources necessary to meet military contingencies."¹ Finally paragraph VIIC, DODD 1100.9, enunciates the principal that "positions which might be designated as 'military' or 'civilian' will be designated appropriate to one or the other, but not both; reasonable opportunities for career development will be an important factor in these instances."

Aside from these basic considerations of manpower resource availability by category and selection of ideal or alternative identities by position, the several rules to be applied in evaluating individual position characteristics with a view to proper military vs civilian identification are enunciated in paragraph 5-2b, AR 570-4, quoted above. Subsequent portions of Chapter 5, AR 570-4, treat those general rules in somewhat greater narrative detail; other portions address the desired identity (i.e., commissioned officer, warrant officer, enlisted or civilian) for selected individual positions. For purposes of continuity in this discussion, our ensuing paragraphs will first dispose of remaining aspects of the military vs civilian delineation issue.

¹Paragraph 8b, OMB Circular A-76, 29 March 1979.

Basic Military Position Identification Criteria.

AR 570-4

" 5-3. Delineation of military/civilian positions. DOD policy provides that the use of military personnel be limited to positions which clearly require military incumbents. . .

a. Department of the Army policy is to delineate for military occupancy only those TDA positions which require military incumbents for reasons of law, security, maintenance of morale and discipline, rotation, combat readiness and training; or which require military background for successful performance of the duties involved; or which are traditionally occupied by military personnel. . . .

c. All positions in a military unit whose mission includes the requirements to engage in, or to maintain readiness for, military operations under combat conditions will be military. This applies to all TOE units other than those organized as Type B (AR 310-31)."

The following excerpt from the above-quoted portion of AR 570-4 is typical of the thrust and tone of language used to describe the basic justification for military identification of individual positions:

"position...requirements to engage in, or to maintain readiness for, military operations under combat conditions." By way of example:

- Combat/combat support positions have been defined as those which, while not now involved in combat or direct support of combat, would be thus involved in a contingency, and should be delineated for military incumbency (see then Acting Assistant Secretary of Defense, Manpower and Reserve Affairs, memorandum subject: Use of Military Manpower, dated 11 February 1977).

- "Any position in a military unit whose mission includes the requirement to engage in, or to maintain readiness for, military operations under combat conditions" will be designated as military (JCS Pub. 3, Volume II, p. 3-5)
- "Workloads should be performed by military only for military essential reasons...for example: for combat or direct combat support" (paragraph 1-1c, Air Force Manual 26-1, 8 May 1973, as amended)
- "Whether combat forces--for example, Army or Marine Corps infantrymen, naval destroyer crews, and Air Force strategic bomber crews--should be military or civilian is obviously not at issue. And few would doubt that those who directly support the combat forces and who are expected to operate in a combat zone should be uniformed personnel." (Committee Print, 95th Congress, 1st Session, Shaping the Defense Civilian Work Force, Committee on Armed Services, United States Senate, U.S. Government Printing Office, 1977, p. 55)

It must be noted with respect to the last quoted Senate Armed Services Committee excerpt that the referenced authority goes on to emphasize that terms such as "combat forces" are, in the author's view, ill-defined and do not serve to draw a sharp line between military and civilian position incumbency criteria.

It must be noted with at least equal weight that the House of Representatives has recently addressed essentially the same point. The House decried the tendency within DOD toward reliance upon so-called objective analytic techniques which "can be overdone and obscure some important facts in a subject area as subjective as manpower and personnel management unless it is blended with a judgment of aspects of the issue less conducive to precise measurement and categorization."¹

¹ See House of Representatives Report Number 95-1118, 95th Congress, 2nd Session, Department of Defense Appropriation Authorization Act, 1979, 6 May 1978, p. 35, emphasis added.

There is merit on both sides of this question of clear definition of terms such as "combat" or "combat support." Consistency and uniformity of criteria and their application to individual positions are, perhaps, the most critical and visible aspects of the matter--whatever the definition verbalized by the Department. In point of fact, that definition was officially revised during the course of the GRC work reported herein. Though such changes have been made from time to time, the Army practice with respect to TOE units generally promotes consistency and uniformity, since all positions in those units are required to be military as prescribed in previously quoted paragraph 5-3c of AR 570-4. There have been exceptions which may challenge that general pattern of consistency; they are discussed in succeeding paragraphs. Before undertaking that discussion, the reader should review the formal definitions of Category I, II, and III TOE units set out below; for completeness, prior and revised definitions from AR 310-25 are shown:

Basic, 15 September 1975

Units are divided into three categories as follows:
Category I—Unit organized under table of organization and equipment whose mission includes the seizing and holding of ground, in addition to that of destroying the enemy, and its corresponding headquarters and service companies, together with a unit whose mission includes destruction of the enemy in support of, or assistance to, the ground gaining troops by fire or other tactical support. Unit operates habitually in the forward portion of the active combat area.
Category II—Unit organized under table of organization and equipment whose mission includes support and assistance of a non-tactical nature to category I units in the forward active portion of the combat area. It is found habitually forward of the army rear boundary and is normally assigned to division, corps, or army.
Category III—Unit organized under table of organization and equipment whose mission includes service and operations in support of a combat area and the operating agencies of a communication zone. The unit is found normally in the communication zone or along the lines of communication leading thereto, to include the continental United States.

Change 1, 12 April 1977

Units are divided into three categories as follows: **Category I**—A unit, organized under table of organization and equipment, whose primary mission includes engaging and inflicting casualties and/or equipment damage on the enemy by use of its organic weapons. Category I status is extended to its corresponding headquarters and service companies whose mission is supporting and providing assistance thereto, and to those command and control headquarters habitually operating in the forward portion of the active combat area (forward of the brigade rear boundary). Category I units normally operate in the forward portion of the active combat area, but may, because of the range of their primary weapons and positioning requirements, operate in the division and corps rear areas.

Category II—A unit, organized under table of organization and equipment, whose mission is primarily that of providing command and control, combat support, or combat service support and assistance to category I units. It operates in the combat zone, normally between the brigade and corps rear boundaries.

Category III—A unit, organized under table of organization and equipment, whose mission is primarily service and assistance to the units operating in the combat area and operating agencies of the communications zone. The unit functions habitually in the communications zone or along the lines of communications leading thereto.

Change 2, 1 June 1979

Units are divided into three categories as follows: **Category I**—A unit, organized under table of organization and equipment, whose primary mission includes engaging and inflicting casualties and/or equipment damage on the enemy by use of its organic weapons. Category I status is extended to its corresponding headquarters and service companies whose mission is supporting and providing assistance thereto, and to those command and control headquarters habitually operating in the forward portion of the active combat area (forward of the brigade rear boundary). Category I units normally operate in the forward portion of the active combat area, but may, because of the range of their primary weapons and positioning requirements, operate in the division and corps rear areas.

Category II—A unit, organized under table of organization and equipment, whose mission is primarily that of providing command and control, combat support, or combat service support and assistance to category I units. It operates in the combat zone, normally between the brigade and corps rear boundaries.

Category III—A unit, organized under table of organization and equipment, whose mission is primarily service and assistance to the units operating in the combat area and operating agencies of the communications zone. The unit functions habitually in the communications zone or along the lines of communications leading thereto.

There is a notable exception to the TOE military incumbency rule. It applies when TOE units are organized as Type B. In such cases, generally limited to combat service support activities (Category III TOE), the applicable TOE (Type B column) lists those positions which must be filled by US military personnel, and by omission those which in other circumstances would be filled by US military, but for Type B TOE "may be filled by non-US personnel in support of the Army outside the continental United States" (paragraph 2-28, AR 310-31, 2 September 1974.) Non-US personnel may be authorized for such use in the following positions:

- Ammunition bearers
- Assistant supply personnel
- Cook's helpers
- Helpers and apprentices
- Supply and ammunition handlers
- Warehousemen
- Stevedores
- Painters
- Packing and crating personnel
- Vehicle drivers (includes 1/4-ton through 5-ton general purpose vehicles)
- Laundry workers
- Materiel handling equipment operators
- Linguists

Were the non-us personnel programmed to occupy these positions anticipated to be military members of the forces of allied or friendly powers, the foregoing provisions for use of non-US personnel in Type B TOE would create no real anomalies in terms of the prescribed combat role of TOE type units. The governing directives in any case provide that non-US personnel will not be used in sensitive positions.

But where the non-US personnel to occupy the positions concerned are to be foreign national civilians, their use in Type B TOE could

indeed represent something of an anomaly in terms of the prescribed combat role of TOE type units.

- It is emphasized that the use of foreign nationals in Type B TOE in the manner described above appears to be contemplated as a special procedure for use during hostilities or other emergencies. It is, however, distinct from so-called labor force procedures, such as those contemplated in DA PAM 690-80, Use and Administration of Local Civilians in Foreign Areas During Hostilities, 12 February 1971.
- Any apparent anomaly resulting from use of foreign national civilians is, in a measure, lessened by the provision for carrying non-US personnel as a TDA augmentation to MTOE units concerned.¹ In a sense, such non-US personnel would not then be seen as an integral part of the MTOE unit--though the very nature of the Type B TOE and of the positions concerned contemplates "substitution" abroad of non-US personnel in positions which would elsewhere be filled by US military members.
- Conversely, the apparent anomaly is magnified when non-US civilian personnel are programmed as "substitutes" in Type B TOE for US military personnel. That appearance may be heightened when concurrent account is taken of the utilization policy applicable to foreign national civilian personnel, emphasizing their availability during hostilities:

Foreign National civilian personnel, in varying degrees, provide the same qualities as US civilian personnel; the extent of their employment depends on their anticipated availabilities during hostilities, the availability of skills,

¹ Paragraph 2-30e, AR 310-31, does clearly state that an augmented TDA will be used to provide Type B MTOE with required foreign national personnel. However, an apparent conflict exists in that paragraphs 2-2d and 2-12c, AR 310-49, specify TDA augmentation will only be used to carry personnel and equipment needed to perform the non-TOE mission of the unit.

security restrictions, the objective of reducing US military and US citizen civilian presence overseas, and the impact on the international balance of payments. The employment of civilians in all feasible positions reduces the requirement for a large military force and permits assignment of the maximum number of military personnel to combat and combat support TOE units. (Paragraph 5-2b, AR 570-4, emphasis added)

An outside observer could conclude against this backdrop that a degree of inconsistency may exist between:

- On the one hand, defining the primary function of the military member to be that of shouldering the burden of combat
- While, on the other hand, calling for the employment of foreign national civilians based "on their anticipated availability during hostilities"; and concurrently providing for their use abroad with combat service support MTOE units serving in areas potentially a part of the combat theater.

In such circumstances, the fundamental thesis underlying the present factors used in delineating military versus civilian positions could be called into question. Substantive shifts in the military/civilian composition of the active Army could result.

We have previously noted significant instances in which the basic military/civilian delineation factors have been closely scrutinized by the Congress. In the 1977 Senate Armed Services Committee Print on Shaping the Defense Civilian Work Force, it is suggested that "much depends on how combat is defined"; and "where to draw the line between military and civilian personnel combat support functions becomes more difficult to judge when it is recalled that US combat forces now deployed rely on foreign national civilians for certain forms of support" (see p. 55, cited Committee Print). Taking a different view, the General

Accounting Office (GAO) has recently advised the Congress that:¹

- The Department of Defense Appropriation Authorization Act of 1975 contained a provision which required the Secretary of Defense to reduce authorized support troops in Europe by 18,000 during Fiscal Years 1975 and 1976 and permitted him to increase combat troops up to the number of reductions made.
- Some of the Army support reductions resulted in actual or potential adverse impacts on wartime combat support capabilities. About one-fourth of Army military support personnel reductions (3,368 authorized positions) were replaced by about 2,700 foreign national civilians:

<u>Functional categories</u>	<u>Military reductions</u>	<u>Civilian hires</u>
Fiscal year 1975:		
Headquarters	10	10
Car companies	80	80
Supply reorganization (wholesale)	147	78
Adjutant General Services	65	65
Truck companies	267	231
Finance	39	14
Combat equipment	356	243
Supply reorganization (retail)	59	58
Brigade 75 support at temporary station	--	68
Fiscal year 1975 total	<u>1,023</u>	<u>847</u>
Fiscal year 1976:		
Car companies	40	40
Finance	81	85
Combat equipment	642	495
Other general support companies	724	489
Engineer company	138	91
Ordnance	69	69
Military police	189	119
Medical	<u>462</u>	<u>462</u>
Fiscal year 1976 total	<u>2,345</u>	<u>1,848</u>
Total	<u>3,368</u>	<u>2,695</u>

¹GAO Report (B-146896), Benefits and Problems Associated with Improving the Ratio of U.S. Combat Troops to Military Support Personnel in Europe, June 7, 1978.

- Much US war planning is apparently based on the expectation that enough local civilian employees will be on duty to enable the units to carry out their missions. However, since civilian availability during wartime is not assured, such an assumption may not be valid.

Taking the basic distinctions between the military combat versus the civilian role in wartime one step further, it should be noted that HQDA has recently considered and forwarded to OSD and the other services proposed legislation to amend Chapter 31 of Title 5, United States Code, "to authorize the retention of certain civilian employees in, or the transfer of certain civilian employees to, unsafe areas, and for other purposes" (see OSA/OCLL memorandum, same subject, 30 May 1978). The proposed legislation would provide legal authority to order US civilian employees and contractor employees occupying "critical positions" to remain at their posts in, or be transferred to, unsafe areas or a combat zone, "even though dependents and other employees are excluded from such areas." Navy noted certain needed changes in the language of the proposed legislation, but interposed no objection even though "working under combat conditions is not a normal expectation of civilian employment" (Navy/OLA memorandum, same subject, 7 August 1978). Air Force opposed the legislation on the grounds that involuntary action of the sort contemplated "...has a tenuous basis in a constitutional democracy... [and] is contrary to established Air Force military essential policy" (Air Force/SAFLL memorandum, same subject, 24 July 1978).

In summary, the actions of recent years outlined above may operate to vitiate the traditional fundamental distinction between military and civilian positions, based on performance of combat and direct combat support functions. That fundamental distinction continues to be cited by DOD authorities consulted as basic to the delineation of military

and civilian positions.¹ In the Department of the Army, the combat and direct combat support rationale is enunciated throughout the governing directives:

- The term "combat" is equated directly to Category I TOE units, such as:

- Artillery Battalion
- Infantry Battalion
- Armor Battalion
- Combat Aviation Battalion
- Combat Engineer Battalion
- Air Defense Battalion
- Separate Brigade
- Division Headquarters

- The direct combat support terminology on occasion used by OSD translates in the Army to both "combat support" Category II TOE units, and "combat service support" Category III TOE units, such as:

<u>Combat Support</u>	<u>Combat Service Support</u>
Signal Brigade	Supply and Transportation Battalion
Aviation Battalion	Maintenance Battalion
Law Enforcement Battalion	Ordnance Battalion
Intelligence Support Group	Data Processing Unit

The complementary term "combat readiness and training," as distinguished from the unit-defined terms addressed above, is used in certain Army Directives as applicable to selected military positions in designated TDA units. The following 1978 listing of TDA unit designators is representative of their functional diversity; representative geographic locations were also included.

¹Outside DOD, a different view is now expressed by some authorities. "For example, it has frequently been argued that activities near combat zones must be manned by uniformed personnel, when in fact the Vietnam experience showed that civilian contractors can perform quite satisfactorily in certain support activities, even in close proximity to combat." See Richard V. L. Cooper, Military Manpower and the All Volunteer Force, Rand Corporation, September 1977, p. 292.

TDA Units

Department of Army Headquarters	Troop Support Agency (Ft Lee)
MACOM Headquarters (Ft Monroe)	ROTC Group (TRADOC-Ft Knox)
Large Post Headquarters (Ft Bragg)	Recruiting Support Center (Cameron Station)
Service School (Engineer)	US Army War College (Carlisle)
Depot (New Cumberland)	US Military Academy (West Point)
Arsenal (Rock Island)	US Army Command and Control Support Agency (Washington, D.C.)
District Engineer (Ft Belvoir)	US Army Intelligence Agency (Ft Huachuca)
Proving Ground (Aberdeen)	Army Band (Ft Myer)
Area Communications Command (Ft Dietrich)	Army Security Agency (Arlington Hall)
Material Development and Readiness Command (Alexandria)	Criminal Investigation Command (Washington, D.C.)
Research and Development Center (Ft Belvoir)	Nuclear Agency (Ft Belvoir)
Troop Training Center (Ft Dix)	US Army Center of Military History (Washington, D.C.)
Transportation Terminal (Bayonne)	US Army Military Personnel Center (Alexandria)
Military Traffic Management Command (Washington, D.C.)	US Army Computer Systems Command (Ft Belvoir)
Medical Center/Hospital (Ft Belvoir)	Defense Mapping School (Ft Belvoir)
Regional Readiness Group (Ft Meade)	
Defense Systems Management College (Ft Belvoir)	

The apparent distinction in Army directives between combat, combat support, and combat service support terminology for TOE units, versus combat readiness and training terminology for TDA units, may be more illusory than real. For example, paragraphs 5-3a and 5-3c AR 570-4, quoted at the beginning of this subsection, attempt to make that distinction; it will be noted, however, that the actual language employed in the cited paragraphs is much similar (i.e., "...TDA positions which require... combat readiness and training..." and "...positions...to maintain readiness for military operations under combat conditions [in] TOE units...").

The following paragraphs address the other factors, apparently intended as largely applicable to TDA units, which are listed in the previously quoted excerpt (see page 2-21) of paragraph 5-3a, AR 570-4, as a basis for designation of positions for military versus civilian incumbency.

Law, Regulations, and Treaties as a Basis for Military Incumbency

Explicit provisions of Title 10, United States Code, many of which will be found in Chapters 303, 305, 307, and 343 of that title, provide that designated top level Army positions will be filled by specific senior civilian and military personnel. The civilian positions include the Secretary, Under Secretary, Assistant Secretaries and Administrative Assistant. The military positions include the Chief of Staff, Vice Chief of Staff, Deputy and Assistant Chiefs of Staff, Chief of Army Reserve, Chief of the National Guard Bureau, Chiefs of Branches, Judge Advocate General, deputies and assistants, military academy authorities, and heads of certain functions and commissions. In at least one case, that of the Comptroller and Deputy Comptroller of the Army, the statute specifically prescribes that one must be military, the other civilian, as determined by the Secretary (10 USC 3014).

There is obviously no need for a special methodology or set of instructions to determine the manpower category or identity of these statutory positions. The law is clear.

In other instances, however, the law establishes a basis for military incumbency but does not explicitly cover a specific distribution of positions as requiring military or civilian incumbents. That is, 10 USC 3064 makes specific provision for special branches of the Army, as follows:

§ 3064. Special branches

(a) The special branches of the Army consist of commissioned officers of the Regular Army appointed therein, other members of the Army assigned thereto by the Secretary of the Army, and the sections prescribed in this chapter. The special branches are—

- (1) each corps of the Army Medical Department;
- (2) the Judge Advocate General's Corps; and
- (3) the Chaplains.

(b) The Secretary may not assign any officer of the Regular Army to a special branch.

Focusing our attention on the Judge Advocate General's Corps,
10 USC 3072 specifies:

§ 3072. Judge Advocate General's Corps

There is a Judge Advocate General's Corps in the Army. The Judge Advocate General's Corps consists of—

- (1) the Judge Advocate General;
- (2) the Assistant Judge Advocate General;
- (3) three officers in the grade of brigadier general;
- (4) commissioned officers of the Regular Army appointed therein; and
- (5) other members of the Army assigned thereto by the Secretary of the Army.

Paragraph 4, AR 27-1, in turn, defines the composition of the Judge Advocate Legal Service to include:

- The Judge Advocate General's Corps, including Reserve Component members of the Corps
- Other officers detailed to the Judge Advocate General's Corps
- Civilian attorneys working in judge advocate offices for whom the Judge Advocate General is the qualifying authority
- Professional consultants, legal technicians, warrant officers, enlisted personnel, civilian employees, and other personnel on duty with the Judge Advocate Legal Service

A similar overview of the Army Medical Department shows:

- 10 USC 3064, quoted above, specifies: "The special branches of the Army consist of commissioned officers"; and lists "each corps of the Army Medical Department" as a special branch.
- The Army Medical Department consists of (10 USC 3067):
 - (1) the Surgeon General;
 - (2) the Assistant Surgeons General;
 - (3) the Medical Corps;
 - (4) the Dental Corps;

- (5) the Veterinary Corps;
- (6) the Medical Service Corps;
- (7) the Army Nurse Corps; and
- (8) the Army Medical Specialist Corps.

- Paragraph 1-3, AR 40-1, 5 May 1976 states: "The Army Medical Department consists of—

a. The Surgeon General, a general officer of the Medical Corps, whose responsibilities are described in AR 10-5.

b. The Deputy Surgeon General, a general officer of the Medical Corps, who performs duties prescribed by The Surgeon General and acts for him in his absence.

c. The Assistant Surgeon General, a general officer of the Dental Corps, who assists The Surgeon General in providing dental health services for eligible personnel.

d. The Medical Corps, the Dental Corps, the Veterinary Corps, the Medical Service Corps, the Army Nurse Corps, and the Army Medical Specialist Corps. The duties of officers commissioned in these corps are listed in chapter 2.

e. Warrant officers (AMEDD), whose duties are listed in chapter 3.

f. Enlisted personnel, whose duties are to perform medically related technical and administrative functions as prescribed in AR 611-201.

g. Civilian employees, including physicians, dentists, veterinarians, nurses, specialists in the sciences allied to the practice of medicine, medical support and service personnel, contract surgeons, and professional consultants. The duties of these civilian personnel are listed in chapter 4.

h. Fee-basis physicians (AR 601-270). "

An overview of the Chaplains (10 USC 3073) reveals a similar treatment.

With respect to each of these three professional segments of the Army, the provisions of law and governing directives identify members of each Corps, and of the Chaplains, as commissioned officers. No further delineation or definition of those positions, once established, is required.

On the other hand, an issue which does arise is that the law provides no concise insight or prescription as to the unit or physical locus of the vast bulk of these positions. That is, whether a given position requires or does not require delineation for a member of a Corps, a professionally qualified civilian counterpart, or a lesser qualified military or civilian quasi-professional, can be the subject of debate.

Of course, the remaining positions within the Legal Service, the Medical Department, and the Chaplaincy (i.e., other than those designated for incumbency by a commissioned member of a Corps or a Chaplain) must be delineated for officer, warrant officer, enlisted, or civilian incumbency in terms of the several other factors discussed elsewhere in this section. A number of Army directives do address the prescribed identity of some specific positions in a variety of functional areas. Those directives are not always consistent and uniform, as outlined in the position identification matrix addressed in Appendix B to this report.

Finally, the United States of America is a signatory to various treaties which have the effective force of law for purposes of position identification. JCS Pub. 3, Vol. II, provides guidance as follows:

...It is the function of the President of the United States, as Chief Executive and as Commander in Chief, to establish policy on broad strategic issues. This is done through a series of policies which relate to US treaty commitments and to other matters vital to the security of the United States....

Additionally, JCS Pub 3, Vol. II, established JCS responsibility for controlling and allocating certain manpower, as follows:

...For International Activities. Approve DOD manpower authorizations (US contribution) in designated international military activities. These are: NATO Military Committee; NATO Military activities; United Nations Command, Korea; Southeast Asia Treaty Organization; and Central Treaty Organization.

Such positions and their military/civilian category delineation, or military identity, are normally based upon negotiation and mutual agreement by high authority at the international level, require no further definition, and are carried by the Department in the active force in the identity prescribed.

"External Positions" as a Basis for Military or Civilian Incumbency

We have previously noted that on 11 February 1977, OSD promulgated the following definition of external positions requiring military incumbency:

Positions External to Services

A position in which military are assigned to commands/agencies external to the Service or which are required for wartime augmentation of commands/agencies external to the Service. Such positions include those authorizations currently assigned to activities outside the service such as defense agencies, other federal agencies, unified commands, and international military headquarters. This category should also be used for positions that support the required mobilization augmentation of commands and agencies outside the Service.¹

For the reasons discussed in the immediately preceding segment of this section beginning on page 2-31 and covering positions within the purview of "Law, Regulations, and Treaties," an essentially

¹Acting Assistant Secretary of Defense (Manpower and Reserve Affairs), memorandum, subject: Use of Military Manpower, 11 February 1977.

comparable rationale applies to external positions requiring civilian incumbency. The essence of that rationale is that the category identification of external positions is normally prescribed based upon negotiation and mutual agreement by high authority.

In the circumstances just outlined, positions external to the Department or that support the augmentation or comparable needs of outside agencies, require no further definition, and are carried by the Department in the active force in the identity prescribed. In any case, it will be noted that for the reasons specified in a preceding segment of this report (see page 2-6) prime emphasis in the course of this study has been placed upon positions within the Department.

"Security" as a Basis for Military Incumbency

Though listed as a key determinant supporting military identification of Army positions, the term "security" is not otherwise defined in the previously quoted excerpt of AR 570-4. It is not defined elsewhere in that directive or related Army directives addressing the issue of position identification.

Similarly, the factor of "security" is cited in paragraph IV, DOD Directive 1100.4, 20 August 1954, as a key determinant of military incumbency. The term is not otherwise defined therein. The language used is essentially identical to that employed in the above quoted excerpt of AR 570-4, except that the DOD Directive (see paragraph IV) explicitly couples "security and the necessity of maintaining a high state of readiness."

Seeking further definition, the GRC Study Team noted that in a 1977 DA study on the use of military manpower, forwarded to the Assistant Secretary of Defense (Manpower and Reserve Affairs) by his Army counterpart,¹ security is not listed among principal "military utilization

¹ Acting ASA (M&RA) memorandum, subject: Use of Military Manpower, 4 March 1977.

criteria"; though the term "physical security" is cited in the text as a "priority combat support function"; and the term "intelligence and security" is listed as a "sub-area" of the "major area" of "combat" with the latter cited first in a listing of military manpower "utilization criteria." The DA study responded to an OSD request which did specify and define explicit military utilization criteria, did not include "security" as such a criterion, but did allow the addition and justification of "other" military utilization criteria.¹

In a follow-on study requested in early 1978,² OSD did cite "security" as one of seven reasons for military staffing listed in DOD Directive 1100.4 (the others being combat readiness, rotation, military background required, law, training and discipline). Each military department was requested to submit manpower arrays for fiscal years 1977, 1978, and 1979, showing military manpower allocated for each of these seven military staffing reasons in each Defense Planning and Programming Category (DPPC) within the Auxiliary Activities and Support Activities DPPCs only. The Army response³ arrayed the required data accordingly, and they are summarized below; "security" manpower for this submission included military manpower authorized for intelligence and security, law enforcement, and five individual enlisted positions in medical support:

¹The OSD criteria listing, excerpted from an ASD (M&RA) memorandum dated 11 February 1977, is quoted verbatim in preceding Section 1 of this report.

²OASD (MRA&L) memorandum, subject: Justification of Military Staffing, 19 January 1978, requested manpower detail from the military departments for use in responding to a Senate Appropriations Committee requirement for justification of military versus civilian staffing (see Senate Appropriations Committee Report 95-325 to accompany the FY 1978 Defense Appropriations Bill, p. 19).

³ODCSPER(DAPE-PBA) memorandum, subject: Justification for Military Staffing-Information Memorandum, 16 February 1978.

	<u>FY1977</u> <u>Actual</u>	<u>FY1978</u> <u>Programmed</u>	<u>FY1979</u> <u>Programmed</u>
<u>Total Auxiliary Activities</u>			
(Intelligence, Centrally Managed Communications, R&D, Geophysical Activities)	21,590	23,267	23,120
"Security" in Auxiliary Activities (Percent of total)	2,098 (9.71)	2,246 (9.65)	2,258 (9.76)
<u>Total Support Activities</u>			
(Base Operating Support, Medical Support, Personnel Support, Individual Training, Force Support Training, Central Logistics, Centralized Support Activities, Management Headquarters, Federal Agency Support)	171,302	169,357	163,923
"Security" in Support Activities (Percent of total)	2,480 (1.45)	2,544 (1.50)	2,442 (1.49)

While arrays are not available for the remaining DPPCs (strategic, tactical/mobility, and individuals) which constitute about 75% of the total active Army military force, it is clear that the military proportion of so-called security manpower is significant.

The definition of security as a military position identification criterion is not clear in current directives. The expansion of the current definition of security to specifically include physical security of certain installations would measurably enhance the military incumbency precept. For example, paragraphs 5-3f(19) and 5-3d(2), AR 570-4, provide the following guidance on the use of gate guards as essential military positions:

(19) Gate guards at entrances and exits to installations primarily oriented toward troop activities (such as post, camp, or station as opposed to industrially oriented installations such as arsenal, laboratory).

(2) As gate guards at entrances and exits to installations and activities, when determined to be necessary by the major commander as a safeguard against destruction or loss of government property, or to prevent subversion or other unlawful activity.

Based on these definitions and assuming that military installation security is a substantive part of the "security" function listed in AR 570-4 as a key determinant of military incumbency, it seems clear that the stated function is largely the domain of military members. A number of directives do address position identification in this, and a variety of other, functional areas. Those directives are not always consistent and uniform, as outlined in the position identification matrix addressed in Appendix B to this report.

"Maintenance of Morale and Discipline" as a Basis for Military Incumbency

...As used in this regulation, no distinction is made between the terms of commander and leader.... Every commander has two basic responsibilities in the following priority: accomplishing the mission and the care of personnel and property...in relation to subordinates, a commander does subdivide responsibility and authority and assigns portions of them.... Military discipline is a state of individual and group training that creates a mental attitude resulting in correct conduct and automatic obedience to military law under all conditions.... (Chapters 2 and 5, AR 600-20, 28 April 1971, as amended.)

The maintenance of morale and discipline in the armed services is predicated upon mutual respect between senior and subordinate personnel. It is a function of military command and the military leader. It applies to all persons in the military service. It is not to be confused with mere supervision and it is not a function of civilian members of the department.

Supervision of military personnel does not constitute justification for or necessarily require a military supervisor. Civilian supervision of the work of military personnel does not include command and does not preclude the military superior of such personnel from exercising military discipline or performing other duties in the administration of military personnel. (Paragraph 5-3d, AR 570-4; emphasis added.)

There are numerous directives relating to the subject of discipline: AR 600-50 discusses Standards of Conduct for DA personnel; AR 1-32 covers Disciplinary Control including lines of authority; AR 27-10 describes Procedures for Court Martial; DA PAM 27-5 is the Staff Judge Advocate's Handbook; we have already cited AR 600-20 on Army Command Policies and Procedures; an explicit code of conduct for military members is prescribed by the Commander-in-Chief; and the Uniform Code of Military Justice and various formal directives governing administrative procedures, deal in detail with the redress of infractions of military standards and discipline prescribed in law and regulation.

But there is no perceptible basis in the literature or in the practices of the military departments for a conclusion that the function of maintaining morale and discipline in the Armed Forces is other than a military function requiring military incumbency. In the one case where there is a statutory bar to the exercise of command by a commissioned officer member of the active Army (i.e., chaplains may not command, 10 USC 3581), the member is not thereby divested in any respect of the innate responsibility for the maintenance of morale and discipline through the exercise of leadership by counsel and example (clearly a function of the chaplain in at least equal measure to any other officer function).

On 11 February 1977, OSD by memorandum provided "National Definitions for Military Utilization Criteria Categories."¹ In somewhat different language, but with essentially the same thrust as contained in Army directives, positions charged with the maintenance of discipline through the exercise of military authority were defined as requiring military incumbency, as follows:

Direct Military Authority: a position which requires the incumbent to exercise military authority over military subordinates under the Uniform Code of Military Justice. In activities staffed by both

¹ Acting Assistant Secretary of Defense (Manpower and Reserve Affairs), Memorandum, subject: Use of Military Manpower, 11 February 1977.

military and civilian personnel, the military discipline function may be performed by a military superior at a higher level or a duly appointed officer elsewhere in the organization.

"Combat Readiness and Training" and "Required Military Background: as a Basis for Military Incumbency"

We have coupled "Combat Readiness and Training" and "Required Military Background" for purposes of this discussion because the former is so directly a function of, and so dependent upon the capabilities of military personnel possessing the latter, as further discussed below.

In preceding paragraphs "position...requirements to engage in, or to maintain readiness for, military operations under combat conditions" have already been cited and discussed as the basic justification for military identification of individual positions.

We have also noted that within the Army the term "combat readiness and training" is apparently intended to have particular application to TDA units. It is useful to reexamine in that connection the expanded "National Definitions" of certain related military delineation criteria disseminated by OSD on 11 February 1977 and quoted below:

"Combat/Combat Support: positions, while not now involved in combat or in direct support of combat, would be under a DoD approved contingency plan. Examples include:

- a. combat air crews, Army TOE units, missile crews, ship crews, etc.
- b. Support positions which have tasks which if not performed could cause direct impairment of combat capability. Such positions include security, in-theater logistics support, communications, combat engineering support, and intelligence.

Contingency Augmentation: positions required by deploying units in contingencies but not authorized in peacetime. Examples include aviators, Air Force Prime Beef teams, and the professional complement of military hospitals.

Current Military Background: positions requiring experience more substantial than familiarity with military administrative procedures or similar capabilities reasonably possessed by civilian employees. Examples include:

- a. officers assigned to direct planning, administrative, and support activities in which recent military experience is necessary to insure that the program is directed toward proper military requirements.
- b. Military personnel assigned as trainers conducting essential military training based on practical military experience and current doctrine.

Military Training Required: positions requiring training not normally available to civilian personnel. Examples include: explosive ordnance disposal, advanced skill paramedics (Navy independent duty corpsmen, Army Special Forces aidmen) and special weapons controllers."

Recognizing that subparagraph a, under "Combat/Combat Support," above, is directed toward TOE units, each of the other quoted OSD delineation criteria effectively support and clarify counterpart Army military identification criteria directed largely toward TDA positions. The logic is as follows:

- Direct combat support positions, particularly in Category II and III TOE, are often authorized for manning at levels below the 100% level (ALO 1) required in wartime. Escalation to those levels at the outbreak of conflict requires reliance, in some measure, upon the TDA positions with corresponding skills in which military members have been placed. One can conclude that the TDA "combat readiness and training" positions filled by military members should effectively enjoy essentially the same precedence for military incumbency as their counterpart positions in MTOE units.

- The TDA combat readiness and training positions just described are, accordingly, a part of the OSD "contingency augmentation" military position grouping quoted in the foregoing OSD definitions.

• The "training" functions of the combat readiness and training military incumbency criterion include those of both trainer positions, and positions which require distinctly military training for the effective discharge of their duties:

- For those who conduct the training--the trainers--a military background (i.e., practical military experience and a first hand understanding of, and experience with, current military doctrine as specified in subparagraph b of the foregoing OSD definition of "current military background") is a firm requirement demanding that positions charged with distinctly military training tasks be identified for military manning.

- For those positions at every echelon of military activity which require distinctly military training for the effective discharge of assigned tasks (as contemplated in the foregoing OSD definition of "military training required"), that requirement demands identification for military manning.

• Having identified these positions requiring distinctly military training, it does not follow that all others in which the trainer and trainee tasks might be discharged by incumbents with civil training can/ should be identified for civilian incumbency. Military position identity will be required when:

- Practical military experience and a first hand understanding of, and experience with, current military doctrine is an essential part of assuring that "planning, administrative and support activities (are) directed toward proper military requirements" (as contemplated in subparagraph a of the foregoing OSD definition of "current military background").

- Distinctively military experience and training more substantial than capabilities reasonably possessed by civilian employees is not necessarily required, but the tasks inherent in the position must be discharged under conditions of employment involving combat or direct support of combat in a contingency (as discussed in the preceding segment on page 2-21

of this report entitled "Basic Military Position Identification Criteria").

The thrust and substance of this logical sequence underlying current Army position delineation practices and procedures may be vitiated in some measure by the previously discussed actions of recent years involving actual or contemplated employment of civilians in a combat or direct combat support environment. These actions could, conceivably, narrow the band of positions now considered intrinsically military, as well as those considered intrinsically civilian. One authority suggests the number of such jobs is already relatively small, "probably no more than 25% of the combined present military and civilian personnel strengths."¹ Whether or not that statistic is accepted, current manpower practices can further erode the basic distinctions. For example, a Category I MTOE mechanized infantry battalion equipped with TOW carries all positions for exclusive military incumbency, including heavy vehicle driver (MOS 64C10). Our research revealed, however, that one Category III type B MTOE conventional ammunition ordnance company carries comparable positions in the same MOS for military incumbency; conversely, another Category III Type B MTOE transportation terminal transfer company apparently relies on foreign national hires for similar positions in the same MOS. Further, the last mentioned Type B transfer company apparently relies in part upon foreign national hires and in part upon military positions for forklift operators (MOS 62F10); while the first mentioned Type B ordnance company apparently relies exclusively upon military positions for forklift operators in the same MOS. In related matters, a recent GAO report² denigrates current Army manpower requirements and utilization practices and procedures; and recommends that OSD clearly define the peacetime and wartime roles of the

¹Richard V. L. Cooper, *Military Manpower and the All Volunteer Force*, Rand Corporation, September 1977, p. 292.

²See GAO Report B-165959, *DOD "Total Force Management"--Fact or Rhetoric?*, 24 January 1979. Also see GAO Report B-133370, *Continuous Management Attention Needed for Army to Improve Combat Unit Personnel Requirements*, 5 September 1978.

military and civilian (and other) elements of the Armed Forces, and the policy governing host nation (foreign national) manpower in meeting US requirements.

"Rotation Base Requirements" as a Basis for Military Incumbency

AR 570-4

5-3. Delineation of Military/Civilian Positions...

* * *

b. Even though a position is delineated for military or civilian occupancy, factors such as the rotation base requirements or availability of skills at required locations may require staffing other than that which has been delineated. As rotation base requirements continually change, the application of these requirements will be directed by HQDA. As an example, a surgeon's position may require that the position be authorized for military occupancy even though delineated as a civilian position. Shortages of funds, civilian manpower spaces or other limitations on authority to hire civilians are not valid reasons for designation of a position for military incumbency not otherwise authorized by this regulation.

By its very nature, a rotation base position does not require a military incumbent but is designated for military incumbency to assist in assuring that reasonable overseas/domestic tour and service policies are applied to military personnel.

Rotation Base Requirements

A position which does not require a military incumbent, but is designated as military to satisfy rotation requirements.¹

Because rotation base balance requires measurement by skill for total active Army military positions, the measurement task falls to HQDA

¹ Acting Assistant Secretary of Defense (Manpower and Reserve Affairs), memorandum, subject: Use of Military Manpower, 11 February 1977.

and the Military Personnel Center (MILPERCEN). The need to satisfy rotation base balance requirements is restated in most Army directives affecting manpower management. For enlisted positions, HQDA has implemented a rotation base policy and publishes it in an annual HQDA letter titled manpower policy to assist in stabilization of the rotation base. The current letter is dated 29 June 1979. Under this program:

Skills with imbalance problems were listed in the following fashion in the 29 June 1979 letter (only a partial list appears below); MACOMS are instructed to "protect" in their commands the corresponding skills by MOS, in the percentage magnitudes indicated:

	<u>MOS</u>	<u>CMDNM</u>	<u>AUSTR</u>
	42D	TSG (FOA)	1
	42D	USAHSC	330
Total Strength For	42D		331
	42E	TSG (FOA)	1
	42E	USAHSC	78
Total Strength For	42E		79
	45B	TRADOC	87
	45B	FORSCOM	3
	45B	DARCOM	5
	45B	USACC	1
	45B	INSCOM	5
Total Strength For	45B		101
	45L	TRADOC	30
	45L	FORSCOM	2
	45L	DARCOM	6
Total Strength For	45L		38

For these skills which are severely imbalanced by having more than 55% of their authorizations overseas an enlisted Space Imbalanced MOS (SIMOS) program has been developed. Implementation of that program is published in DA Circular 611-62. Civilianization of skills in these MOS in CONUS TDAs is prohibited. As of 29 June 1979 the MOS in the SIMOS program are:

05D	22N	32G
05K	23N*	34E
12E	23U	34F
15D	24C	34J
15E	24G	35F
15F	24K	35H
15J	24L	36L*
16B	24U	45N
16C	25J	45R
16D	26H	46N
16E	26R	55G
19J	26V	55Z
21G	27H	72G
21L	31T	98G
22L	32D	

This method of quantification is directly adaptable for use in the GRC-developed quantitative position identification methodology which is the subject of this report. As previously specified, the essential data for the system must be developed and manipulated centrally because they are based upon the Army-wide posture, by skill. Finally, to be fully reflective of Army rotation base needs, and to be fully addressed using the GRC-developed quantitative position identification methodology, a regularized program for officers should be developed comparable to the SIMOS program for enlisted skills.

"Tradition" as a Basis for Military Incumbency

AR 570-4

5-3. Delineation of Military/Civilian Positions.

* * *

f. The positions listed below are delineated as military positions.

(1) ...

(2) ...

(3) Positions which by tradition or custom normally are occupied by military incumbents.
Examples: aide (officer and enlisted), liaison

officer, chaplain, provost marshal, secretary of service schools and colleges, USMA professor and instructor as designated by Superintendent USMA, inspector general, command sergeant major, first sergeant, band leader and bandman, chaplain's assistant, recruiter and career counselor, drill sergeant and honor guard, and company level supply sergeant and company clerk.

The quoted Army definition closely follows that of OSD promulgated most recently on 11 February 1977:

Tradition and/or Custom

A position which by tradition and custom has been filled by military personnel. Such positions include bandmen and honor guard.¹

Practice in the several services appears to be reasonably uniform in the matter of tradition and custom as a basis for military incumbency. While questions have periodically arisen in various quarters as to the total number of military personnel authorized in such functions as bands, honor guards, aides, and others, there has generally been little question that military incumbency is called for in the positions that are authorized. For example, in suggesting an expedited military-to-civilian conversion program in "administrative and support positions," a recent GAO report cites many examples of potential and actual conversions, but makes no substantive reference to military positions based upon tradition and custom.¹

"Career Progression" as a Basis for Military Incumbency

The military personnel system is a "closed" structure. Fresh military personnel resources normally join the force at the "bottom" of their respective military categories. New (as distinguished from prior

¹ GAO Report B-146890, Using Civilian Personnel for Military Administrative and Support Positions--Can More Be Done?, 26 September 1978.

service) military personnel generally are not brought into the force at higher grades, except in the case of certain professional skills.

Thus, reasonable promotion flow and career progression for military members requires a generally pyramidal structure. The broad base represented by the lowest grades should rise in a regularized and graduated fashion, to the "point" of the pyramid represented by the small number of top grades in each military category (officer, warrant officer, enlisted). Each grade requires a sufficient number to accommodate attrition, provide for a reasonably competitive promotion opportunity, and assure career incentives through reasonable progression.

To allow this career flow, an appropriate number of positions in each grade is required. The characteristics of individual positions alone will not generally provide the graduated numbers required. Like the overseas rotation balance issue discussed in a previous segment of this report (page 2-45), career progression requirements constitute a managerial constraint which can only be resolved centrally, rather than at MACOM or lower level.

The career progression requirement as a basis for military incumbency appears with regularity in Army directives, and is specifically referenced in paragraph 5-5a, AR 570-4, with respect to real property maintenance manpower. The OSD 11 February 1977 military incumbency definitions we have previously cited continued the long-standing recognition of that career progression requirement (see paragraph VIIC, DOD Directive 1100.9) as follows:

Career Progression Requirements

A position which does not require a military incumbent, but is designated as military to satisfy a career progression requirement.

As a general rule, the Army's career progression requirements by grade and years of service are not quantified and promulgated in detail

by HQ DA for use in the field in the position identification process. Were these career progression requirements so quantified and promulgated, they might be directly adapted for use in the GRC-developed quantitative position identification methodology, in essentially the same fashion as enlisted rotation base data promulgated under the SIMOS program.

Morale, Welfare and Recreation Activities

The designation of military positions in selected morale, welfare, and recreation (MWR) functions is a matter of continuing interest outside the Department. Army policy follows and expands upon the OSD-prescribed rules:

570-4

5-6. Staffing of morale, welfare, and recreational activities. a. Recreational services, whether supported from appropriated or non-appropriated funds or combinations thereof, will be staffed with civilians to the maximum extent possible. No military personnel may be assigned to positions in these activities except: for purposes of rotation, training, and career progressions not available at other activities; where qualified civilians are not available; and where essential military command supervision cannot otherwise be effectively provided. Enlisted personnel may be employed on a part-time, voluntary, off-duty basis in these activities, when paid from nonappropriated funds. In non-US overseas areas, preference will be given to employing qualified dependents of military and US civilian personnel over local nations in such activities unless prohibited by international agreements.

b. Military officers will be assigned as custodians of major command welfare funds and installation central post funds. When qualified military personnel are not available, a civilian employee compensated from appropriated funds may be designated as custodian subject to prior approval of the appropriate major commander.

c. Military personnel may be assigned on an additional duty basis to exercise supervision over and serve as custodian of revenue-producing and sundry fund morale, welfare, and recreational type activities. Examples are activities such as athletic facilities, billeting funds, book departments, bowling alleys, craft shops, flying clubs, golf courses, greenhouses, management and harvesting of fish and wildlife, museums, parachute clubs, rod and gun clubs, theaters, youth activities, riding clubs, and other similar activities. Civilian personnel will be employed for full-time operational and managerial staffing of these activities except as cited in subparagraph a above. This regulation does not constitute authorization to pay from appropriated funds operating personnel in the above-cited activities.

d. Army club (open mess) systems will be operated under the supervision of an Installation Club Manager (ICM). The officers' club, NCO club, EM club, and consolidated class VI store will be operated as branches of the ICM's office. Staffing of the ICM's office and the various branches will be in accordance with guidance in DA Pam 570-551.

e. For commissaries, authorization for staffing in excess of three military positions per commissary must be specifically justified when request for approval of TDA is submitted to HQDA.

Extensive additional guidance on the use of military and civilian personnel in MWR activities is contained in ARs 230-1, 230-2, and 230-60, as well as other directives. Latitude is provided for the use of alternative personnel categories in delineating individual positions (see, for example, paragraph 5-6b, AR 570-4, quoted above). The degree of discretion provided could induce some inconsistencies in field application from command to command. Concise definition of the criteria to be used in category identification of MWR positions, combined with objective methods of evaluating the elements of each position, could largely eliminate these inconsistencies.

Other Grounds for Military Identification of Individual Positions

Though military positions in the United States may be more or less "static" in peacetime, most may be "deployable" in wartime. While the issue is implicit in our earlier treatment of contingency augmentation in the preceding discussion of "combat readiness" (see page 2-29), deployability is a substantive factor in determining military or civilian incumbency, by position. Army practice in this regard is the subject of GAO Report B-146890, The Army Can Improve Peacetime Use of Deployable Enlisted Personnel, 7 September 1978. As noted on page 2-4 and elsewhere in this report, the manpower availability factors and MACRIT data used in computing MTOE unit manpower requirements can have a very direct bearing on peacetime versus wartime force size and deployment needs.

At least one other principal determinant of position delineation, the staffing guide, requires treatment here.

AR 570-4

3-3. Staffing standards. a. Manpower criteria for TOE units are contained in AR 570-2.

b. Manpower staffing guides, published as DA pamphlets in the 570-500 series, serve as points of departure for determining requirements in TDA units under normal operating conditions. Although staffing guides are generally based on CONUS activities, they may be applied to oversea organizations when similar conditions prevail. They neither prescribe nor authorize manpower spaces or positions. Their application must be tempered with professional judgment with due consideration given to the variances of each situation.

MACRIT for TOE units have already been discussed in preceding pages.

Staffing guides promulgated in DA Pamphlets in the 570-500 series also provide quantitative and qualitative staffing tables for a variety of TDA activities. Staffing guidance for many of these same activities is addressed to some degree in AR 570-4 and in other publications noted

in these pages. The guides in the DA Pam 570-500 series are intended to delineate positions as military or civilian in accordance with criteria in AR 570-4; and to further identify military positions for commissioned officer, warrant officer, or enlisted incumbency.

Since staffing guides are widely used in both the initial structuring of organizations, and by manpower survey teams in conducting staffing reviews and requirements determination surveys, they play a major role in position delineation decisions, particularly at installation level. The degree of specificity provided in the guides makes them easy to use and can tend to lend more validity to delineation of positions based on the content of such guides than to decisions based on subjective interpretation of generalized policy found in other documents. The latter tendency is, of course, directly dependent upon the validity and integrity of the manpower management principles and techniques applied in the first analysis when developing the staffing guide concerned.

Civilian Identification of All Other Positions

Army directives undergird two principles prescribed for uniform application within the Department of Defense:

- Use of military personnel will be limited to positions which clearly require military incumbents (paragraph 5-3, AR 570-4).
- All other positions are normally delineated for civilian occupancy (paragraph 5-3a, AR 570-4).

The permanent conversion of civilian positions to military incumbency is severely constrained. Such action is generally possible only after normal attrition of civilian incumbents of the positions concerned, and then only where the military incumbency criteria described in preceding portions of this report are clearly applicable. Temporary use of military personnel in positions delineated for civilian incumbency is also sharply limited; less severe, but stringent, limits apply to temporary use of civilians in military positions; in both categories,

statutory rules on incumbency cannot be abrogated; and military command positions must be filled by military incumbents.

Individual Positions Identified by Specific Directives

A narrative statement of each individual position given a prescribed military identity or explicitly identified for civilian incumbency by specific Army directives, would be lengthy and complicated at best. In lieu, a matrix presentation has been constructed in Appendix B, Individual Positions Identified by Specific Directives. Each position listed in the first column of the Appendix B matrix is identified for the incumbency prescribed by the directives listed under each manpower category in the succeeding columns of the matrix. While the position listings shown are representative and extensive, they may not be exhaustive; others not now listed in the matrix could undoubtedly be added after additional research.

The content of Appendix B does illustrate, however, that there are overlaps and apparent anomalies in position delineation directives. Varying degrees of subjectivity may be called for in resolving these overlaps to determine the position identification to be prescribed by commanders in their manpower authorization documents. The number of directives which identify individual positions, and the number of instances in which two or more directives address the same position(s), may create some confusion or opportunity for error and oversight at field-level manpower management activities. At minimum, the number of written authorities and the number of instances in which alternative position identities are sanctioned, may lay the groundwork for a degree of inconsistency in the field. Effectively, the option to select among identity alternatives for individual positions compounds the broad latitudes already extended to MACOMs by virtue of the Department's decentralized manpower management system. That is not to say that commanders, who have the ultimate responsibility for mission execution, should not have flexibility in accommodating the increasingly severe resource constraints with which they are faced. It does, however, substantiate the utility of more objective quantitative methods for position delineation.

OFFICER/WARRANT OFFICER/ENLISTED IDENTITY OF MILITARY POSITIONS

Appendix B already lists a variety of individual positions by prescribed military identity. The Army directives discussed in the ensuing paragraphs prescribe the rules under which individual military position identity determinations are now required to be made.

General criteria for the establishment of positions for officers, warrant officers, and enlisted personnel are summarized in Appendix B, AR 310-49, 10 June 1975, as changed. That directive specifies in paragraph 3-8a that these criteria, quoted below, "have been extracted from pertinent regulations."

B-1. Commissioned officer positions. Commissioned officer positions are those that involve:

- a. The exercise of disciplinary powers requiring the administration of judicial punishment, Uniform Code of Military Justice (UCMJ).
- b. The command of platoons and higher level units.
- c. Serving as a staff officer or assistant staff officer of a unit staff, special staff, or general staff.
- d. Serving as motor officer, communications officer, liaison officer, or similar capacity involving a comparable standard or special staff function.
- e. Serving as an assistant to a commissioned officer in a position that requires the same types of skill and knowledge.
- f. Qualifications and performance of duties that are limited to the commissioned officer level by Army policy.

* * * * *

B-2. Warrant officer positions. Officer level positions most suitable for selection as warrant officer positions are those predominantly involved in the immediate supervision of technical operating and maintenance activities. Positions which meet all or most of the following criteria may be considered for classification as warrant officer positions:

- a. Positions encompassing several enlisted technical skills.
- b. Positions that require unique aptitudes, abilities, talents, or capacities, such as required for musical direction, supervising repair of complex equipment, or piloting aircraft.
- c. Positions predominantly concerned with the technical details of the professional occupations. This requirement serves to distinguish between the specialized skills of the warrant officer and the specialized skills of the standard professions.
- d. Positions in a headquarters staff which supervises an activity which provides a service to the headquarters and units of the command. For example, Food Service Technician, MOS 941A, and Unit Personnel Technician, MOS 711A.

e. Positions in which duty would tend to restrict the career development of broadly trained, branch qualified commissioned officers.

f. Positions which require continuous or repetitive assignment of technical qualified personnel.

g. Technical advisor positions in Military Assistance Advisory Group (MAAG) or missions.

h. Positions which normally do not require command of tactical units.

i. Assistant positions above the enlisted level which may be designated for warrant officer occupancy will be based upon the following:

(1) When positions designated for warrant officer occupancy are being assisted, the assistant positions are also designated for warrant officer occupancy.

(2) Officer level positions in an organizational element headed by a commissioned officer may be designated for warrant officer occupancy if:

(a) The positions meet a majority of the provisions of paragraphs a through h above.

(b) The positions are required for supervision of a separate activity or function within the organizational element headed by the commissioned officer.

j. The following types of officer level positions are not authorized for designation as warrant officer positions:

- (1) Company commander.
- (2) Company executive officer.
- (3) Motor officer.
- (4) Staff officer or assistant staff officer of a general, special or unit staff.
- (5) Assistant positions to commissioned officer position if both require the same types of skills and knowledge.
- (6) Liaison officer of full-time inspector positions.
- (7) Positions in company operations sections or similar organization segments, which require broad planning and operational jurisdiction over subordinate technical operating element.

* * * * *

B-3. Enlisted positions. a. Enlisted positions are authorized when the individual position duties and responsibilities are other than those required to be performed by officers.

Taken at face value, and starting first with enlisted positions, one might conclude that they are effectively established by process of elimination. In point of fact, the distinguishing factors between military identity categories are not that clean cut. The higher range of skill (and grade) levels in the enlisted category, for example, demonstrates a degree of overlap with some warrant officer factors. Addressing enlisted skill level 5 (which identifies positions authorized in grades E-8 and E-9) chapters 1 and 12 of AR 611-201, 1 January 1974, as changed, indicate that skill level 5 identifies higher level, managerial-type supervisory positions that require a broad, general knowledge of the tasks performed in order to coordinate and give direction to work activities. While warrant officer positions generally require a significant depth of experience in a technical field, and while the warrant officer position calls for concentrated technician expertise, a degree of overlap exists with the last referenced requirements associated with top-level enlisted positions. Indeed, a recent OSD-sponsored study specifies "there is some overlap between junior commissioned officer positions, warrant officer positions, and senior enlisted positions."¹ In part on grounds that the E-8 and E-9 enlisted positions obviate any real need for warrant officers, the Air Force has effectively eliminated the warrant officer military category completely.

The existence of a degree of overlap between junior commissioned line officer and line warrant officer positions² seems apparent in the delineation of warrant officer positions "to perform highly specialized or technical middle management functions"; though the last quoted portion of paragraph 1-4a, AR 611-112, 15 November 1977, as changed, goes on to state these positions "are above the enlisted level" and are those which would "tend to restrict development of commissioned officers." While

¹DOD Officer Requirements Study, January 1975, p. 30.

²Officer/warrant officer overlap generally does not exist in the Special Branches, by virtue of the provisions of law discussed in a preceding subsection of this report (page 2-31, et seq.).

these distinctions can be substantive, there are other important areas of significant similarity. Of these, the matter of command is most often cited first as a commissioned officer function. In the matter of command:

- Existing law specifies that: "Under regulations prescribed by the President, a warrant officer may be assigned to perform duties that necessarily include those normally performed by a commissioned officer" (10 USC 3548).
- The Uniform Code of Military Justice contemplates "warrant officers exercising command" (10 USC 815).
- Warrant officers may command a station, unit, or detachment, provided that such command does not include commissioned officers eligible to exercise command (paragraph 4-3b(1), DA Pam 600-11, 7 July 1977).
- When assigned duties as station, unit, or detachment commanders, warrant officers are vested with all powers usually exercised by commissioned officers, with some exceptions (paragraph 3-12g, AR 600-20, 28 April 1971, as changed).

Thus, at least in the matter of command at lower organizational levels and in non-tactical units, the authorities of commissioned officers and warrant officers may be considered comparable for the purposes and with the provisos indicated above.

As we have previously noted in this section, the number and content of formal written directives in the areas we have addressed may detract from the quality and uniformity of manpower utilization and delineation decisions. For example, with a somewhat different thrust and in a language which varies from that quoted above in AR 310-49, position identification criteria applicable to both officer and warrant officer positions are restated for TOE units in paragraph 2-24, AR 310-31, 2 September 1974:

2-24. Officer positions (includes commissioned and warrant officer). a. A TOE organization or a subdivision thereof is authorized an officer position when its mission, composition, size and the criticality of its effectiveness require assignment of one or more personnel who possess authority to—

(1) Command platoons and higher level units.

(2) Exercise disciplinary powers that include as a minimum, the administration of non-judicial punishment under the provisions of UCMJ.

(3) Serve as staff officer, assistant staff officer, liaison officer, motor officer, etc.

(4) Authenticate, certify, or verify official papers, documents, reports, and correspondence.

(5) Disburse funds and certify vouchers and payrolls.

(6) Administer oaths.

(7) Other comparable duties and responsibilities. (emphasis added)

It will be noted that the just-quoted excerpt appears to place commissioned and warrant officers on an equal footing, apparently omits reference to limitations on level of command, and authorizes warrant officer incumbency of certain positions apparently contrary to the provisions of Appendix B, AR 310-49, quoted previously.

SUMMARY

The position delineation methodology currently in use within the Department of the Army results from a concerted effort to satisfy the intent of Congress, guidance as provided by DOD, and the Army priority objective of assuring that sufficient trained personnel are available upon mobilization to man the armed forces and the sustaining structure.

The research effort undertaken by the GRC Study Team is limited to positions that might be filled by full-time active duty military personnel and in-service DA civilian employees at domestic and overseas stations, including foreign national direct and indirect hire civilians employed abroad.

The GRC Study Team reviewed the literature, pertinent law, DOD guidance, JCS publications, DA regulations, other information derived from staff and field interviews in Army field units in the Washington metropolitan area, and from telephonic discussions with manpower managers and force development personnel. Detailed discussions of identifiable factors and considerations that influence the position identification process have been set forth in this section. Summary comments are provided here for emphasis.

a. The decentralized DA management philosophy intended to give the commander latitude and flexibility in structuring the command work force inherently accepts the possibility of more or less variation by command in the position delineation process.

b. The availability or, conversely, the lack of manpower resources by category, function, or location can be a most influential (at times, the most influential) factor in the "ideal" position identity determination process.

c. Whether combat forces should be military or civilian is clearly not at issue. Less clear is what the term combat forces is meant to define. Present definitions do not draw a sharp line between military and civilian incumbency criteria.

d. Factors such as DA proposed legislation to authorize the retention of certain employees in, or the transfer of certain civilian employees to unsafe areas may operate to vitiate the long-standing and fundamental distinction between military and civilian positions.

e. There is substantial similarity between "combat, combat support and combat service support" terminology for TOE units and the "combat readiness and training" terminology supporting military incumbency in selected positions in TDA units. The precedence of TDA combat readiness positions should be measured accordingly.

f. Law, treaties and regulations prescribe a specific military delineation in the case of a number of specific functions. For many of these, however, they do not provide a conclusive basis for specific minimum numbers either by unit or organizational level, or in the aggregate.

g. The latitude provided in a number of directives for use of alternative personnel categories in various functional activities introduces a degree of discretion that can induce inconsistencies in field application of the existing Army position delineation methodology.

h. The first stage of the position identification process distinguishing between the military and civilian personnel categories would be greatly enhanced by clearer definition of distinguishing factors.

i. The succeeding stages specifically identifying military authorizations by commissioned officer, warrant officer, and enlisted positions also require concise redefinition of factors to provide a much clearer basis for resolution of "overlaps" in the utilization of the three military categories.

The nature of the factors applied in the position identification process is such that the most promising approach to development of an improved position identification methodology appears to lie in a combined decision-logic/quantitative technique using accurately and concisely redefined factors. The GRC recommendations looking toward implementation of that approach are detailed in the following section.

SECTION 3

RECOMMENDED STRUCTURAL AND METHODOLOGICAL MODIFICATIONS

GRC synthesis of the materials addressed in Section 2 pinpoints the factors currently used in the Army position identification process. That synthesis allowed development of the revised and redefined factors which, in turn, are the foundation of the GRC-developed quantitative position identification methodology. These results are effectively addressed in this section as recommendations for change, which are justified in detail herein and are designed to:

- Identify promising methodological changes. These proposed methodological modifications address in detail our proposed revised position identification criteria, and their use in a GRC-developed combined decision-logic/quantitative construct.
- Suggest promising structural changes. These proposed structural modifications address fundamental aspects of current and proposed position identification methods, with a view to implementation of improved processes in a management and organizational environment which will assure most effective results.

PROPOSED METHODOLOGICAL CHANGES

Methodological approaches addressed in these paragraphs are aimed directly at achievement of the following objectives excerpted from the statement of work covering the current contract effort described in this report.

The results of this study shall provide the basis of validating the identity of positions currently in the force structure, serve as a means of demonstrating the numbers of positions in each identity necessary to perform the Army's mission and provide an improved procedure for establishing the identity of positions in future Army force structure adjustments. The quantitative procedures are likely to be incorporated into existing Army regulations governing manpower management and must be sufficiently simplistic to be used by manpower managers at all levels with minimum training.

The GRC Study Team early subscribed to selected basic precepts, tried and proven in constructing so-called "factor analysis" methods for grade determination,¹ as a foundation for development of an effective "category analysis" method within the Department of the Army. These fundamental precepts are listed below:

- A rational method is required, using objectively established factors.
- Factors must discriminate between the values and inter-relationships of categories of personnel, i.e., military versus civilian, officer versus enlisted, and officer versus warrant officer.
- Factors must be readily understood by management and users.
- The factors and the system in which they are used must be simple, easy to establish, explain, and operate.
- Only the minimum number of factors essential to accurate category delineation should be used.

As was suggested in Section 1 of this report, the requirements of position identity determination (i.e., commissioned officer/warrant officer/enlisted/civilian) are closely related to those of grade determination. A review of relevant literature² on the various approaches to grade determination reaffirmed our conviction that the most feasible

¹Harold Suskin, Job Evaluation and Pay Administration in the Public Sector, Basic Concepts of Job Evaluation, International Personnel Management Association, Chicago, 1977, p. 13.

²A partial listing includes: Lee Smith, "The EEOC's Bold Foray into Job Evaluation," Fortune, September 1978, pp. 58-60; Charles H. Anderson, Herman A. Mahnen, Carrol Papajohn and Raymond O. Waldkoetter, Officer Rank Determination by Evaluative Ratings (Order), US Army Enlisted Evaluation Center, June 1970; Joseph M. Madden and M. Joyce Giorgia, Identification of Job Requirement Factors by Use of Simulation Job Descriptions, Air Force Human Resources Laboratory, June 1964; Raymond E. Christal, Systematic Method of Establishing Officer Grade Requirements Based upon Job Demands, Air Force Human Resources Laboratory, July 1975.

approach to the category delineation challenge is a combination of decision logic and a modified factor ranking system. A Factor Evaluation System (FES) of job evaluation is in use in the Federal Civil Service and is an outgrowth of the work performed by the Federal Job Evaluation and Pay Review Task Force.¹

A factor ranking system effectively combines features of whole job ranking, point rating and factor comparison methods of job evaluation. The factor ranking method developed by the GRC Study Team consists of the following features and components:

- Factors selected to discriminate between categories have the following characteristics:
 - Each factor is discrete; i.e., it measures a part of the category that is not measured by any other factor.
 - Each factor measures an important element of the category.
 - Each factor measures an element of the duties and responsibilities actually performed in a given position--not what the individual or successive occupants of that position may be able to do in different assignments. That is, the delineation decision is based on the duties and responsibilities of the position, and not upon the alternative qualifications of one or another individual incumbent.
 - Each factor is susceptible of clear-cut definition and understanding.

¹Established pursuant to Public Law 91-216 (Job Evaluation Policy Act of 1970), approved March 17, 1970. The mandate of the Task Force was to "...prepare a comprehensive plan for the establishment of a coordinated system of job evaluation and ranking for civilian positions in the executive branch..." of the Federal Government.

- Guide charts define various degrees of each factor and either provide the point values of each degree, or provide the user with the information and instructions needed to generate those point values.
- Tables will be used to convert total point values of individual positions to the resulting category delineation. Factor point values are totaled to determine the aggregate point value of a particular position. That point value is converted, using the table, to the appropriate category (i.e., military or civilian; officer or enlisted; commissioned officer or warrant officer).

Factors Revised and Defined

Position identification processes and structures currently in Army use were assessed in detail in Section 2, their derivations have been examined, and current practices in related areas outside the Department have been reviewed. The order in which current Army position identification criteria are addressed in Section 2 roughly represents the precedence they are currently accorded within the Department. These criteria apply in the delineation of a position's "ideal identity," and some either directly or indirectly affect selection of an "alternative identity" when required to accommodate manpower resource and management constraints. Because of the variety of formal Departmental written materials which define and redefine individual military/civilian category delineation and military identification factors, the GRC Study Team reassessed, realigned, and redefined those factors to:

- More accurately represent valid criteria which do provide a consistent and definitive basis for discrimination between given positions and their functional requirements.
- Embellish resulting factor descriptions to take full account of valuable guidance in OSD and higher authority instructions

and other literature, which round out position identification content, promise better "gray area" coverage, and enhance resolution of existing definitional overlaps.

- Take the first important step in isolating and concisely defining a series of incisive delineation and identity factors which lend themselves well to the establishment of quantitative values and relative weights. The latter must provide the firm foundation for the GRC-developed quantitative position identification methodology which is the ultimate objective of this study.

The factors, concise factor definitions, and their relative rank order resulting from this reassessment, realignment, and redefinition effort are set forth in Table 3.1, Position Identification Factors, in rough relative order of precedence. For the reasons discussed in subsequent paragraphs, the Position Identification Factors are tabulated such that they correlate with a three-tiered position identification decision process. The Position Identification column of Table 3.1 is designed to show how each factor is or should/or may be applied in making the delineation decision; the meanings of symbols used in the table for this purpose are explained in the following example:

Factor	Description	Position Identification		
		Decision-Logic		Quantitatively
		Military	Civilian	Delineated
Any Factor	As Appropriate	(EE)		
"	"			(EE)
"	"	(P)		(BAL)
"	"	(P)	(SEC)	

Positions covered by the Factor fall in one category EXCLUSIVELY. In the example, they can be Military ONLY.

Positions covered by the Factor fall PRIMARILY in one category; the BALANCE should properly be delineated using quantitative methods

Using Decision-Logic only, positions covered by the Factor fall PRIMARILY in one category, and SECONDARILY in the other.

The Factor should be applied to positions through use of quantitative methods EXCLUSIVELY.

TABLE 3.1

POSITION IDENTIFICATION FACTORS

(The factors in this table are not used or required for military positions in the following categories: cadets, students, trainees, holdees, patients, transients, prisoners. Designation of these military positions is either quantitatively determined by law, or as a function of the aggregate number on active duty in each military category, and/or of the number required at future points in time.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	
		Mil	Civ	Delin	
	Step 1: Military or Civilian Delineation				
(1) Combat	Positions in units constituted to operate habitually in the forward portion of the active contingency or combat area. These units and their corresponding headquarters and service companies are organized under a Category I modification table or organization and equipment (MTOE) and are assigned primary missions which include that of destroying the enemy and seizing or holding ground; or of destroying the enemy by fire or other tactical action in support of or as assistance to the ground gaining forces. Combat units organized under Category I MTOE will be charged with secondary missions in exceptional cases only.	(EE)			
(2) Combat Support	Positions in units constituted to operate habitually forward of the Army rear boundary in the active contingency or combat area. These units normally assigned to division, corps, or army, are organized under a Category II MTOE and are assigned primary missions which include direct support and assistance to combat units in the forward active portion of the combat area. Combat support units organized under Category II MTOE may be charged with execution of secondary missions which are related to or are an extension of the assigned primary missions.	(EE)			

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	
		Mil	Civ	Delin	
(3) Combat Service Support	Positions in units constituted under a Category III MTOE to exercise the primary mission of providing operational assistance and services in direct support of combat and combat support units in the active contingency or combat area. Their primary mission responsibilities involve tasks which, if not performed or if appreciably delayed, could cause effectively immediate and direct impairment of combat capability. They normally operate in the communications zone of the combat theater or along the lines of communication leading thereto, to include the continental United States. Combat service support units organized under Category III MTOE will be charged with execution of secondary missions when possible; such secondary missions will be related to or an extension of the assigned primary missions.	(EE)			
(4) Pretrained Contingency/Wartime Augmentation	Table of Distribution and Allowance (TDA) positions requiring immediately deployable pretrained incumbents available for contingency/wartime augmentation of combat and direct combat/combat-service support MTOE units. Skills/capabilities maintained in these positions are essential for MTOE unit augmentation and casualty replacement either immediately or relatively soon after commencement of sustained contingency/wartime operations, but are not authorized to those MTOE units for manning in peacetime. As of 31 March 1979, the active Army MTOE sustained wartime augmentation requirement to attain "level 1" (100%) was as follows; these data do not include "level 1" augmentation requirements for Selected Reserve MTOE, and do <u>not</u> include potential military casualty replacement needs of active or reserve MTOE:	(EE)			

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	
		Mil	Civ	Delin	
		"Level 1" Required	Peacetime Authorized	Augmentation Increment	
	<u>MTOE^a</u>				
	Category I	6,389	5,840	549	
	Category II	6,470	4,939	1,531	
	Category III	3,662	1,564	2,098	
	Category Unknown ^b	21,382	18,542	2,840	
	Subtotal	37,903	30,885	7,018	
		<u>Warrant Officers</u>			
	Category I	1,432	1,354	78	
	Category II	2,185	1,808	377	
	Category III	317	231	86	
	Category Unknown ^b	6,467	6,105	362	
	Subtotal	10,401	9,498	903	
		<u>Enlisted</u>			
	Category I	97,744	94,399	3,345	
	Category II	81,947	72,630	9,317	
	Category III	28,285	21,238	7,047	
	Category Unknown ^b	276,641	268,845	7,796	
	Subtotal	484,617	457,112	27,505	
		<u>Officers/Warrant Officers/Enlisted</u>			
	All Categories	532,921	497,495	35,426	

^aThe Army Authorization Documents System (TAADS) data, factored to Force Accounting System (FAS) manpower levels.

^bCategory not currently indicated in automated TAADS output.

TABLE 3.1 (cont.)

Factor	Description	Position Identification		
		Dec-Logic	Quant	Delin
		Mil	Civ	
(5) Security	TDA positions dedicated to physical security and tasks which, if not performed or if appreciably delayed, could cause effectively immediate and direct impairment of combat capability. Primary mission/task responsibilities of these positions are to: provide physical security and law enforcement at installations primarily oriented toward troop activities; provide physical security and law enforcement at selected activities to prevent loss or destruction of government/military property essential to military readiness and the national security.	(P)		(BAL)
(6) Intelligence	TDA positions dedicated to intelligence tasks which if not performed could cause effectively immediate and direct impairment of combat capability. Included in this category may be: positions assigned to selection and prioritization of requirements and allocation of resources; positions assigned to correlate, analyze and direct collection programs; positions required to develop focused intelligence summaries, devise techniques, perform intelligence tasks, and to control dissemination of intelligence information.	(P)		(BAL)
(7) Direct Military Authority and Discipline	TDA positions which require the incumbent to exercise command, or to exercise military authority over military subordinates under the Uniform Code of Military Justice. The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of military command, or of the military leader (regardless of grade) acting on behalf of the military commander and/or on his own recongizance. Civilian supervision of the work of military personnel does not include command or the exercise of direct military authority, and is not a function of civilian members of the Department. By the same token, supervision of military personnel does not, in and of itself, constitute justification for or necessarily require a military supervisor.	(P)		(BAL)
(8) Rotation Base Requirements	CONUS TDA positions which would not otherwise require military incumbents, but which are delineated for military incumbency to provide balanced and reasonable domestic/overseas terms of service for military personnel, based upon overseas tour lengths and limitations prescribed by the Secretary of Defense.	(EE)		

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	Delin
		Mil	Civ		
	<ul style="list-style-type: none"> ● CONUS TDA positions identified by an MOS included in the Enlisted Space Imbalanced MOS (SIMOS) program announced in DA Cir 611-62 (as periodically updated and implemented in revisions to that circular, or in periodic formal HQDA communications) will be delineated for military incumbency and will not be civilianized. ● Other CONUS TDA positions identified by an MOS included in periodic formal HQDA communications identifying other rotation base skill imbalance problems will be delineated for military incumbency in the numbers or percentage magnitude prescribed by HQDA. Positions thus delineated for military incumbency will not be civilianized. ● REMAINING CONUS TDA positions will not be delineated for military incumbency on grounds of Rotation Base Requirements unless the positions concerned are identified by an MOS formally cited by HQDA as experiencing rotation base skill imbalance problems. 				
(9) Career Progression Requirements	TDA positions which would not otherwise require military incumbents, but which are delineated for military incumbency to provide balanced and reasonable promotion flow and career progression to military personnel. Career progression requirements must be computed centrally since they are based upon total active force needs in each military identity (commissioned officer, warrant officer, enlisted). TDA positions will not be delineated for military incumbency on grounds of Career Progression Requirements unless the positions concerned are formally cited for such identification by HQDA, by MOS and grade.	(EE)			
(10) Military by Law or Treaty	Positions within or outside the Department of the Army requiring a military incumbent either by statute; or by virtue of Presidential or Secretary of Defense policies relating to U.S. treaty commitments and to related matters vital to the security of the United	(EE)			

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	
		Mil	Civ	Delin	
	States; or by virtue of Joint Chiefs of Staff action approving the U.S. Army military manpower contribution to international military activities of NATO, the NATO Military Committee, United Nations Command Korea, Southeast Asia Treaty Organization (SEATO), Central Treaty Organization (CENTO), and other activities based upon international agreement.				
(11) Civilian by Law or Treaty	Positions within or outside the Department of the Army requiring a <u>civilian</u> incumbent either by statute; or by virtue of Presidential or Secretary of Defense policies relating to U.S. treaty commitments and to related matters vital to the security of the United States; or by virtue of Joint Chiefs of Staff action approving the contribution by the Department of the Army of Federal civilian manpower to international activities of NATO, United Nations Command Korea, SEATO, CENTO, and other activities based upon international agreements.		(EE)		
(12) External Military Requirement	Positions which are: <ul style="list-style-type: none"> • Within commands/agencies/organizations outside the Department of the Army, which have been designated for Army military incumbency by agreement between the Department and lateral or higher Federal authorities. • Within the Department of the Army and designated for military incumbency to meet contingency/wartime augmentation and mobilization needs in commands/agencies/organizations outside the Department, based upon agreement between the Department and lateral or higher Federal authorities. These positions are a part of Army active force structure strength, but are assigned to (or programmed for): the Office of the Secretary of Defense; the Office of the Joint Chiefs of Staff; the several OSD	(EE)			

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic	Quant	Mil	Civ
	and JCS field activities; the several Department of Defense agencies; the unified and specified commands under the operational control of the JCS; and other designated activities within or under the jurisdiction of the Federal Government				
(13) External Civilian Requirement	Positions which are within commands/agencies/organizations outside the Department of the Army, which have been designated for incumbency by Federal civilian employees of the Department of the Army by agreement between the Department and lateral or higher Federal authorities. These positions are a part of Army active Federal civilian strength, but are assigned to and located within: the unified and specified commands under the operational control of the JCS; and other designated activities within or under the jurisdiction of the Federal Government.	(EE)			
(14) Current Military Background/Training Required	TDA positions requiring military experience and training more substantial than familiarity with military administrative or personnel administration procedures, or similar capabilities reasonably possessed by civilian employees. Included in this category may be: <ul style="list-style-type: none"> • Positions assigned to direct planning, management, military systems maintenance/test/evaluation, weapons development, and comparable indirect combat support activities in which substantive and recent military experience is necessary to insure that programs are directed toward essential military requirements. • Positions for personnel assigned as trainers conducting essential military training based on their own military training and practical military experience, and current military doctrine. • Positions requiring training in explosive ordnance disposal, special weapons controller, Special Forces aidman, and comparable 	(BAL)			(P)

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic	Quant	Mil	Civ
	combat support and combat service support-type functions; training for which is not normally available to or appropriate for civilian personnel.				
(15) Tradition and/or Custom	TDA positions which by tradition and custom have been filled by military personnel. Military delineation of these positions either contributes essential "esprit" to military organizations, or is a visible aspect of the position lending essential credibility to the incumbent in the execution of the tasks and responsibilities inherent in the job. While other factors listed in this table may also play a role in the position delineation decision with respect to the following positions, they are examples of jobs which by tradition or custom are designated for military incumbency: aide (officer and enlisted); provost marshal; inspector general; U.S. Military Academy (USMA) professor and instructor as designated by Superintendent, USMA; secretary of service schools and colleges; command sergeant major; first sergeant; band leader; band member; recruiter and military career counselor; drill sergeant; chaplain's assistant; company level supply sergeant and company clerk; honor guard.	(P)			(BAL)
(16) Unusual Hours or Working Conditions	TDA positions, not otherwise requiring military incumbents, which entail unusual working hours or working conditions not compatible with or normally associated with civilian employment. Military incumbency will be prescribed for these positions, provided that HQDA (Director of Civilian Personnel) formally confirms that the unusual working hours or working conditions inherent in the position cannot reasonably be made a "condition of employment" in the successful recruitment of prospective civilian incumbents.	(P)			(BAL)

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	
		Mil	Civ	Delin	
(17) Morale, Welfare, and Recreation (MWR) Activities	<p>Civilian Incumbency: TDA full-time operating and managerial positions in MWR activities, whether supported from appropriated or non-appropriated funds, will normally be staffed with civilians. Military incumbency of full-time positions will be authorized only in the specific circumstances prescribed below. Except in those circumstances, neither the essential tasks performed by incumbents of full-time MWR positions, nor their conditions of employment involve inherently military functions or expertise.</p> <p><u>Military Incumbency:</u> Compelling objective justification exists for military delineation of TDA full-time positions in MWR activities only in the following circumstances:</p> <ul style="list-style-type: none"> • When military leadership supervision is essential. See and use in making the position delineation decision in these cases the principles enunciated in this table for Direct Military Authority and Discipline. Note especially that the exercise of military authority in appropriate circumstances may be a function of a military position at a higher level, or a designated position elsewhere in the organization of which the MWR activity is a part. Note, further, that military personnel may be assigned on an additional duty basis to exercise supervision over and serve as custodian of revenue producing MWR activities. • As specified in this table for <u>Rotation Base Requirements</u>. • As specified in this table for <u>Career Progression Requirements</u>. • As specified in this table for <u>No Qualified Civilians Available</u>. <p>In any case, requests for permanent military delineation of more than three positions per commissary store must be approved by HQDA and will be based only on the nonavailability of qualified civilians.</p>	(P)	(SEC)	(BAL)	

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	Delin
		Mil	Civ		
(18) No Qualified Civilians Available	<p>TDA positions, not otherwise requiring military incumbents, which are dedicated to functions which must be performed by government personnel in the execution of governmental responsibilities, but for which no qualified civilians are available. Military incumbency will be prescribed for these positions, provided that:</p> <ul style="list-style-type: none"> • All reasonable efforts have been made locally to recruit qualified civilians. • Within 12 months after initial designation for military incumbency, HQDA formally confirms qualified civilians from other geographical areas are not available. Normally, foreign national direct hire and U.S. direct hire categories are interchangeable. In view of this, if the local labor market in an overseas area cannot supply the required skills, the recruitment of civilian applicants from the CONUS must be considered. • Conversion to civilian incumbency will be effected when qualified civilians do become available. 	(EE)			
(19) Commercial/Industrial Activities	<p>Commercial/industrial activities provide a product or service that could be obtained from a private source manned and operated by non-Federal personnel in the civil sector of the economy. Commercial/industrial activities are listed and defined in OMB Circular A-76, DOD Directives 4100.15 and 4100.33, and AR 235-5. The listings are not exhaustively all-inclusive; neither the listings nor the accompanying definitions should be narrowly interpreted to exclude activities which fall within the essential purview of those listings and definitions.</p> <p><u>Civilian Incumbency:</u> TDA positions in commercial/industrial activities are normally delineated for civilian incumbency because they do provide a product or service that could otherwise be obtained from a private civilian source. Exceptions to allow military incumbency must be held to minimum essential levels, and must be objectively determined under the decision rules below.</p>				(P)

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	
		Mil	Civ	Delin	
	<p><u>Military Incumbency</u>: Compelling objective justification for military incumbency within commercial/industrial activities must support each military position delineation decision. Such compelling justification exists and military position delineation will be prescribed when:</p> <ul style="list-style-type: none"> • The positions concerned are assigned to combat, combat support, or combat service support units (see Combat, Combat Support, and Combat Service Support factors and descriptions in this table). • The positions concerned are assigned to TDA units and <ul style="list-style-type: none"> - A factor specifically identified and described in this table requires military incumbency; or - The position concerned will be used for military incumbents who will either provide or receive retraining <u>required</u> for the effective discharge of military duties. <p><u>Quantitative Identification of Incumbency</u>: Identification of additional TDA positions for military incumbency will be authorized only where justified based upon the GRC-developed quantitative position delineation methodology. Aspects of factors (5) through (7) and (14) through (17) in this table may influence in some quantitative measure the position delineation decision in each such case.</p>	(SEC)			(BAL)

Note: Factor (19), Commercial/Industrial Activities, may require reassessment, redefinition, and/or reconsideration of its use in the Step 1-Military or Civilian Delineation phase of the position identification process. This possibility is indicated by the results of the initial and very limited test of the process, reported in Section 4 of this report.

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QUANTITATIVE PROCEDURE FOR POSITION IDENTITY DEFINITION. (U)
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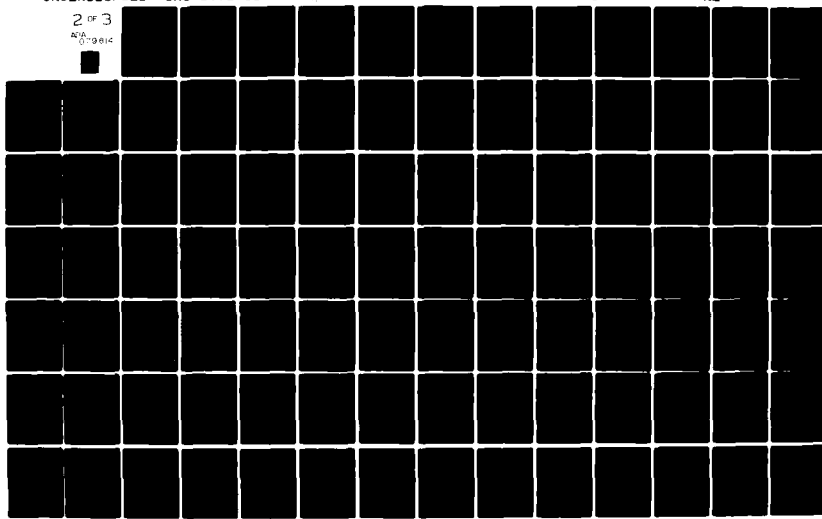


TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	
		Off	Enl	Delin	
	Step 2: Officer or Enlisted Identification				
(a) Command, Platoon or above	Positions requiring the discharge of direct leadership authority and responsibility, through the exercise of command of military units at platoon or higher organizational level (NOTE: Warrant Officers may not command units which include commissioned officers).	(EE)			
(b) Disciplinary Powers (UCMJ)	Positions requiring the incumbent, in the interest of good order and discipline, to exercise powers prerequisite to the imposition of judicial or nonjudicial punishment under the UCMJ.	(EE)			
(c) Officer/Enlisted by Law or Treaty	Positions requiring an officer (commissioned officer or warrant officer status may be explicitly prescribed), or an enlisted member, either by statute; or by virtue of Presidential or Secretary of Defense policies relating to U.S. treaty commitments and to related matters vital to the security of the United States; or by virtue of Joint Chiefs of Staff action approving the contribution by the Department of the Army of military manpower to international activities of NATO, the NATO Military Committee, United Nations Command Korea, Southeast Asia Treaty Organization (SEATO), Central Treaty Organization (CENTO), and other activities based upon international agreement.	(EE)			
(d) Knowledge	The nature and extent of information or facts which the incumbent must understand to do acceptable work (e.g., steps, procedures, practices, rules, policies, theories, principles, and concepts) and the nature and extent of the skills needed to apply that knowledge.				(EE)

TABLE 3.1 (cont.)

Factor	Description	Position Identification			
		Dec-Logic		Quant	
		Off	Enl	Delin	
(e) Supervisory Control	The nature and extent of direct or indirect controls exercised by the incumbent. Controls are exercised in the way assignments are made, instructions given, priorities and deadlines are set, and objectives and boundaries are defined. Imposing these controls in ways calculated to best achieve unit goals requires coordination and personal contact at the management and supervisory level outside the immediate activity.				(EE)
(f) Judgment and Guidelines	The importance and independence of judgments and decisions required of the incumbent by the position. The nature, variety and possible impact of decisions. The nature of the guidelines (directives, policies, practices) available to the incumbent, and the extent of individual judgment exercised by the incumbent in the successful application of guidelines. The less well-defined the guidance for decisions, the more demanding the position; the more specific and detailed the guidance, the less demanding.				(EE)
(g) Decision-making and Complexity	Accurately identifying the different ways to complete a task, and selecting the most effective and timely method. The level of difficulty and the degree of originality required will be determined by the nature, number, variety and intricacy of tasks, steps, processes or methods available to execute the mission tasks.				(EE)

TABLE 3.1 (cont.)

Factor	Description	Position Identification		
		Dec-Logic		Quant
		C/Off	W/Off	
	Step 3: Commissioned or Warrant Officer Identification			
(A) Commissioned Officer, By Law or Treaty	Positions requiring a commissioned officer either by statute; or by virtue of Presidential or Secretary of Defense policies relating to U.S. treaty commitments and to related matters vital to the security of the United States; or by virtue of Joint Chiefs of Staff action approving the contribution by the Department of the Army of military manpower to international activities of NATO, the NATO Military Committee, United Nations Command Korea, Southeast Asia Treaty Organization (SEATO), Central Treaty Organization (CENTO), and other activities based upon international agreement.	(EE)		
(B) Warrant Officer, by Law or Treaty	Positions requiring a warrant officer either by statute; or by virtue of Presidential or Secretary of Defense policies relating to U.S. treaty commitments and to related matters vital to the security of the United States; or by virtue of Joint Chiefs of Staff action approving the contribution by the Department of the Army of military manpower to international activities of NATO, the NATO Military Committee, United Nations Command Korea, Southeast Asia Treaty Organization (SEATO), Central Treaty Organization (CENTO), and other activities based upon international agreement.	(EE)		
(C) Know-How**	The sum total of every kind of skill, however acquired, needed for acceptable job performance. The accumulated amount of knowledge, managerial comprehension, and human relations skills required to perform the duties inherent in the position.**			(EE)

TABLE 3.1 (cont.)

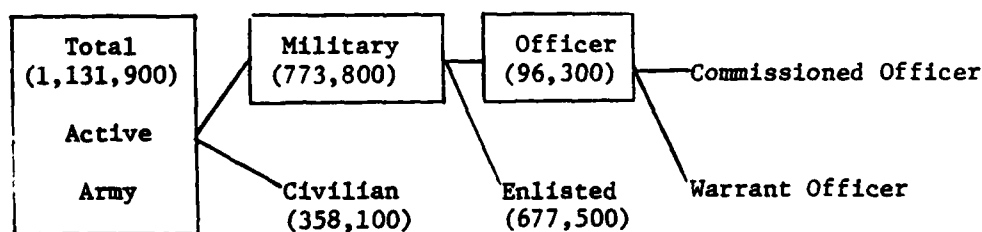
Factor	Description	Position Identification		
		Dec-Logic		Quant
		C/Off	W/Off	
(D) Problem-Solving**	The intensity of know-how required to identify, define, and resolve a problem. The amount of original, self-starting thinking required by the position for analyzing, evaluating, creating, reasoning, arriving at and making conclusions.**			(EE)
(E) Accountability**	Answerability for actions demanded by the position, and for consequences of action taken. The impact of the job on end results, measured against the latitude or freedom to act.**			(EE)

** Source: "Military and Civil Service Work Comparison," p. 36 et seq; "An Analysis of Selected Linkages Between Military and Civil Service Occupations," Volume II, Appendix A; The Third Quadrennial Review of Military Compensation, Staff Studies and Selected Supporting Papers, Volume VIII, Department of Defense, December 1976.

Using Revised Factors in the GRC Decision Logic/Quantitative Construct

The revised, redefined, and roughly rank-ordered position identification criteria we have just reviewed are the foundation of the combined decision logic/quantitative methodology which is the objective of this GRC study. The nature of these identification factors suggests a multiple-step approach in the development of that methodology. For example, combat, combat support, and combat service support criteria in Table 3.1 clearly provide a conclusive basis on which to identify selected positions as military rather than civilian; but these criteria standing alone offer no conclusive basis for the further identification of those positions individually as commissioned officer, warrant officer, or enlisted positions. Each such military position must, accordingly, be again examined to determine the appropriate military identity. The identification of officer positions (both commissioned and warrant) versus enlisted offers the next best either-or opportunity to categorize the military universe (active Army only) using a set of discretely defined factors. Once this sequence is completed, the remaining officer segment of the universe can then be addressed in terms of discrete factors that distinguish commissioned from warrant officer positions.

Through this step-down technique the problem and its decreasing size may be illustrated as follows:¹



¹ FY79 manpower program data by category in the FY80 President's budget request, were excerpted from the Manpower Requirements Report for FY80, Department of Defense, February 1979. Military data include "individuals" (transients, patients, prisoners, holdees, students, trainees, cadets).

Factors must be organized and the methodology developed in a fashion that recognizes this unique aspect of the problem. To satisfy this consideration and the concepts guiding methodology development, the factors may be most effectively applied to a breakdown of our category delineation objectives into the successive steps graphically depicted in Figure 3.1, Position Delineation Process.

To satisfy this three-tiered approach, factors are selected in each step that pertain to the delineation segment in that particular step. A factor that discriminates civilian incumbency need only be used in step 1. Factors that delineate enlisted positions may apply in both steps 1 and 2, but not in step 3. We need not attempt, therefore, to construct a single set of factors to provide the discrimination required for all categories.

Selected factors must be organized into decision logic format and others rank ordered with assigned values that permit the development of the category analysis procedure contemplated in Figure 3.1. Within each step a combination of decision logic and quantitative methodologies will be applied. Once decision logic has been exhausted as a binomial (yes/no) approach, quantitative methods will be used. An example of a decision logic table is set forth below as it might apply in step 1.

If Position Is One:

Then the Position Is:

	<u>Military</u>	<u>Civilian</u>	<u>Quantitatively Delineated</u>
1. Required to perform combat, combat support, or combat service support functions in CAT I, II, III MTOE.	X		
2. Required by law or treaty to be military.	X		
3. Requiring some current military background/training.			X

STEP 1

STEP 2

ABBREVIATIONS:
QD - QUANTITATIVE DELINEATION
DLT - DECISION LOGIC TABLE

```
graph TD
    POS((POSITIONS)) --> DLT1((DLT))
    DLT1 --> MIL1{MIL}
    DLT1 --> QD1{QD}
    DLT1 --> CIV1{CIV}
    MIL1 --> DLT2((DLT))
    CIV1 --> DLT2
    DLT2 --> MIL2{MIL}
    DLT2 --> CIV2{CIV}
    QD1 --> DLT3((DLT))
    CIV1 --> DLT3
    DLT3 --> OFF1{OFF}
    DLT3 --> EM1{EM}
    OFF1 --> OFF2{OFF}
    OFF2 --> OFF3{OFF}
    OFF3 --> OFF4{OFF}
    OFF4 --> OFF5{OFF}
    OFF5 --> OFF6{OFF}
    OFF6 --> OFF7{OFF}
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Figure 3.1. Position Delineation Process

Once we have taken full advantage of the decision logic process to delineate categories in each of the steps described above, a quantitative factor ranking system will be applied. To exploit this quantitative approach the identification factors to be employed must be expanded into degrees, and these degrees weighted to limit subjectivity. Examples of factors that do not necessarily prompt the clear binomial (yes/no) answer required in a decision logic table, and that require expansion into degrees for factor analysis are:

- Working conditions and unusual hours
- Supervisory control and complexity

When rank ordered these factors might be given percentage values such as:

- 15% working conditions and unusual hours
- 25% supervisory controls
- 30% complexity
- 30% other
- The accumulated percentages for this universe must equal 100%, as suggested above.

Values are usually assigned to factors on the basis of pooled judgment. Multiple correlation computations offer a quantitative method for determining the relative influence of each factor in the whole ranking process and such computations can also be employed. These methods are discussed and applied in Appendix D.

Each basic factor which is to be employed in the quantitative segment of the GRC decision logic/quantitative construct must be broken down by the establishment of a number of degrees--subfactors--that constitute a measurement scale. Such a measurement scale for the factor "Current Military Background/Training Required" might be constructed as illustrated below:

<u>Point Value</u>	<u>Subfactor Benchmark</u>
25	Works in primarily civilian environment.
50	Has working contact with programs which indirectly support troop programs.
75	May be called upon to guide or lead.
100	Supervises small weapons system support programs.
125	Has staff level responsibility for review of planning/programming for weapons systems and support programs.
150	Has independent responsibility on and off the job for a prime weapons system and support program.

Point values can be assigned to each degree of each factor through either an arithmetic or a geometric progression or a variation of the two. These approaches were tested and the arithmetic construct resulting in the highest correlation was selected as outlined in Appendix D.

The assignment of points to each degree is relatively simple. Using arithmetic progression, the weight (i.e., percentage value) assigned to the factor can be used as the point value for the lowest degree of that factor. Assuming the factor "Current Military Background/Training Required," has a value of 25% in the rank order of factors, the first degree (subfactor) within the factor would have a value of 25, the second degree 50, the third degree 75, etc. Alternatively, using geometric progression in the above example, the first degree would still have a value of 25 with 50 points assigned at the second degree level. The third degree, however, would have a value of 100 and the fourth degree 200 points. In any case, the point values assigned to each degree of a factor--i.e., each subfactor--should ultimately be subjected to adequate testing to determine their validity, and the degree of consistency with which the subfactors and their assigned values function as integral elements of the identification process. Reasonably exhaustive testing has not been possible within the time and resource constraints imposed upon the current contract effort. Recognizing that limitation, the Army Study Advisory Group (SAG) which had been constituted for this research undertaking, and its membership, assumed

a major role (see Appendix C) in the limited demonstration testing which was possible and which has been completed. Details of that demonstration testing are addressed in Section 4 of this report.

Earlier discussion identified the major components of a modified factor ranking system for use in category delineation, as: factors selected to discriminate between categories; guide charts that define weights/degrees of each factor and their respective subfactors; and conversion tables used for equating point values of an individual position to a given category.

- The basic factors selected to discriminate between categories are displayed and defined in Table 3.1.
- Subfactors describing degrees within each factor used in the quantitative segment of the GRC-developed decision logic/quantitative construct, are defined in the step-by-step GRC methodology detailed in Section 4.
- Values are assigned to each quantitative subfactor used in the methodology detailed in Section 4. Those values have been derived using the Delphi technique in concert with empirical analyses, and the results modified based on exchanges with the SAG, its members, and their representatives. Methods and techniques employed to derive subfactor values are generally described in Appendix D.
- Conversion tables used for equating point values of an individual position to a given category are included in the detailed documentation of the GRC methodology set out in Section 4.

PROPOSED STRUCTURAL MODIFICATIONS

Before proceeding to examination of the recommended means of implementation of the methodological modifications just discussed, it is important to address the results of our evaluation of the current environment or structure in which the position identification process

takes place. Paragraph F.3.4 of the statement of work in contract DAAG39-78-C-0141 properly requires such "recommendations as to suggested modification or to terminate ongoing or planned initiatives which lack promise." The essence of the discussion and recommendations which follow was originally communicated to the study sponsor in the first half of a draft Section 3 of this report turned over to the COR and SAG on 16 March 1979.

HQDA long-term initiatives set forth in Chief of Staff Memorandum (CSM) 76-570-62, subject: Determination of Officer Requirements, dated 3 December 1976 (File CS 210), which were the genesis of this GRC study are quoted below:

Position Definition

- a. Review and improve procedures whereby each position is defined as being filled most efficiently by either an officer, enlisted man, civilian or civilian contractor.
- b. Consider mobilization, deployment, continuity requirements, and costs.
- c. Consider peacetime requirements versus war-time requirements.

As indicated in preceding sections of this report, there are some existing and contemplated procedures in the current position identification and decision process structure which may militate against achievement of the objectives sought by the quoted long-term initiatives. The numbered subparagraphs which follow contain brief recommendations for change and discuss selected aspects of the structure of the decision process with a view to elimination of apparent deficiencies.

1. Centralization and Control of the Position Delineation Process

Criticizing OSD guidance to the Military Departments on proper force "mix" and manpower category utilization, GAO on 24 January 1979 noted: "OSD expects the services to adhere to this guidance, but

it has no criteria to measure compliance."¹ OSD is also cited for inadequacy of present manpower policy guidance, on grounds that "each service determines manpower requirements using its own system, sets of logic, decision rules, and policies."

Our review indicates that the Army position identification decision process may suffer not from absence of policy guidance and criteria, but from an overabundance of detailed guidance. Our review also indicates, however, that any resulting deficiencies may be compounded by: the highly decentralized nature of the decision process, with broad authority vested in commanders of MACOMs; and the apparent lack of consistency in the language of some formal Army directives. In addressing these apparent deficiencies, we are sensitive to the fact that decentralization is an inevitable outcome of the sharp annual reductions in central management headquarters which have been effected in the last decade. We concurrently recognize the difficulty in obtaining scarce manpower resources for realignment to selected central management headquarters functions in an effort to reverse the decentralization trend.

Despite these circumstances, we believe productive steps can be taken to offset any deleterious effects of existing wide latitudes and decentralization in the decision process by:

- Requiring strict and uniform MACOM adherence to the position delineation factors to be finalized as a result of this current GRC study.
- Conducting an exhaustive review of the large number of Army formal directives dealing with the delineation process, in order to:

¹GOA Report B-165959, DOD "Total Force Management"--Fact or Rhetoric? 24 January 1979, p. 7.

- Recind redundant segments with permissively broad or apparently inconsistent language; though significant direct conflict between individual directives may not exist, redundant segments and inconsistent language appear to promote nonuniform understanding and applications in the field.
- Replace the remaining fragmented direction in various regulations, pamphlets, and other publications, with centralized and expanded direction in a revised version of AR 570-4.
- Undertaking these actions as an extension of the work being performed under the current contract DAAG39-78-C-0141.

Appendix B, Individual Positions Identified by Specific Directives, provides a partial listing of directives which could constitute a beginning point for this effort.

2. Firmly Linking Military Delineation with the Combat Environment

The literature shows an almost universal predisposition to understand and accept military delineation of positions assigned to, or programmed for assignment in wartime to, combat and direct combat support activities. This condition of employment requires no extensive explanation to support its direct association with the roles, functions, and missions of the soldier.

Type B MTOE (Category III, Combat Service Support) unit structures, though apparently few in number (we have not conducted a detailed review of the number in the current force structure), are based upon a rationale which seems out of context with the basic principle that the combat environment requires military incumbency. Paragraph 2-30e, AR 310-31, contemplates use of an augmentation TDA for Type B MTOE in the combat theater in wartime; the augmentation TDA would be composed of foreign national civilians. The contemplated use of such personnel in wartime as an integral part of a duly constituted unit suggests a contradiction

which could well lead a uniformed critic to question military incumbency of comparable positions in any similarly constituted Category III MTOE-- and perhaps some Category II combat support MTOE. Indeed, that thesis may already be an implicit part of, or lend credence to, such criticisms as are asserted or implied in the recent Brookings Institution study¹ and the Rand study² addressed on previous pages of this report (see especially pages 2-21 through 2-30).

Accordingly, Type B MTOE should be considered for discontinuance as an Army organizational concept. It is certainly not the intent of this recommendation to suggest eliminating the use of foreign national personnel. Both the regular employment and the opportune use of such personnel has been a regular practice in past in periods of peace and in time of conflict. We do recommend, however, eliminating the perception of such personnel as integral to the structure of any MTOE unit, in order to remove any potential challenge to the logical basis for MTOE military incumbency as mandatory.

For essentially the same reasons, it may become very difficult to maintain reasonable correlation between military position identification and the combat environment, in the face of Army-proposed legislation to require selected Federal civilian and contractor employees to manditorily serve in wartime in combat zones. We have previously discussed such a HQDA legislative proposal on preceding pages 2-28 through 2-30. We do not impugn here in any way the commitment to national best interests, or the patriotism of American civilians-in peace or in war. We do suggest that the proposed legislation may have less than enthusiastic support within DOD, may have even less support in some public and congressional quarters on a variety of grounds (some constitutional), and in the process may further debilitate the fundamental grounds supporting military

¹Op. cit., p. 1-5.

²Op. cit., pa 2-29.

identification of combat and direct combat support positions. This suggestion is not predicated on simply defensive grounds or vague misgivings. It is based upon the precept that military effectiveness in time of war is a function of unquestioning willingness of the military member to serve where, when, and under whatever conditions may exist, without regard to personal choice. This precept may well be inimical to the concepts of civilian service in our society; unwary reliance upon application of that principle in a civil environment could, in such circumstances, render vulnerable key elements of the national military capability. The proposed HQDA legislation should, accordingly, be reconsidered.

3. Contract Service and Mobilization Considerations

The time and resources available to the GRC Study Team under the current effort required a focus upon the active Army military and civilian structure, as prescribed in Contract DAAG39-78-C-0141. It has not been possible to expand the study scope to fully cover other manpower resources, such as contract services, or augmentation increments to the active Army upon mobilization. Among the latter are Mobilization TDA (MOB TDA) which for specific TDA units reflect wartime manpower levels upon mobilization which exceed the "pre-mobilization" manpower requirements columns incorporated in published TDA and reflected in TAADS. While these elements were outside the direct purview of the contract study reported herein, and we have no specific recommendations on these matters at this point, it must be recognized that the position delineation factors and principles developed in the course of this study could heavily influence or, in turn be heavily influenced by the manpower policies, practices and procedures applied to these supporting and augmenting elements of the active Army. Appropriate follow-on review of those elements should, accordingly, be conducted to isolate and correct conflicting principles and assure employment of compatible manpower policies, practices and procedures.

SECTION 4

THE DECISION LOGIC/QUANTITATIVE POSITIONS IDENTIFICATION METHOD

All of the work carried out by the GRC Study Team under contract No. DAAG39-78-C-0141 has been directed to the ultimate objectives of:

- Developing a decision logic/quantitative procedure which:
 - Can be incorporated into existing Army regulations governing manpower management
 - Is sufficiently simplistic to be used by manpower managers at all levels with minimum training
 - Provides the basis for:
 - Validating the identity of positions currently in the force structure
 - Demonstrating the numbers of positions in each identity necessary to perform the Army's mission
 - Establishing the identity of positions in future Army force structure adjustments
- Demonstrating that the decision logic/quantitative procedure we have developed can be successfully applied to a representative sample of positions currently in the Army force structure
- Recommending how the decision logic/quantitative procedure may be implemented Army-wide.

These are the three key project objectives. They have been achieved. Their products are detailed in the remaining portions of this section.

QUANTITATIVE POSITION IDENTIFICATION HANDBOOK FOR MANPOWER MANAGERS

It was our conviction from inception that this research undertaking should have as its prime product, a practical vehicle for Army-wide manpower management use in implementing the quantitative methodology.

Accordingly, we proceeded directly to the construction of such a vehicle in the form of a draft DA Pamphlet 570-X. Originally published at GRC in July 1979 and subsequently submitted to the study sponsor, it has been revised to incorporate minor modifications/improvements and is reproduced in its entirety beginning on the next page.

(Numeration of Section 4 continued
after page 3-13 of DA Pamphlet 570-X)

DEPARTMENT OF THE ARMY PAMPHLET

570-X

POSITION
IDENTIFICATION
HANDBOOK

D R A F T

HEADQUARTERS, DEPARTMENT OF THE ARMY

July 1979
September 1979 (Rev)

Prepared under Contract Number DAAG 39-78-C-0141 by the General Research Corporation for the Manpower, Plans and Budget Directorate, Office of the Deputy Chief of Staff for Personnel, Department of the Army.

Contracting Officer's Representatives were, in consecutive order, Colonel K. D. Wall, Colonel Oran A. Massey, Mr. Clyde D. Boden, and Colonel Oran A. Massey.

Published July 1979

Revised September 1979

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1
1

FOREWORD

This pamphlet describes procedures used to define active Army positions by category (commissioned officer; warrant officer; enlisted; civilian). These procedures are prescribed for use by manpower managers and others charged with position definition responsibilities such as those in AR570-4. Their consistent application will directly promote the most effective and economic use of Army personnel resources.

The pamphlet also contains brief comment on the potential use of data generated by the process in The Army Authorization Document System (TAADS) described in AR310-49.

Users of this publication are encouraged to submit recommended changes and comments for improvement. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons will be provided for each comment to ensure understanding and complete evaluation. Comments should be prepared on DA Form 2028 (Recommended Changes to Publications and Blank Forms) and be forwarded direct to HQDA (DAPE-MBU), Washington, D.C. 20310.

PAMPHLET

NO. 570-X

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, July 1979

POSITION IDENTIFICATION HANDBOOK

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CHAPTER 1
INTRODUCTION

1-1. GENERAL. This publication was prepared for Headquarters, Department of the Army, for Army-wide use in identifying the proper personnel category for each position, military and civilian, in the active Army force structure. It explains the position identification method, provides guidance for use in applying the identification method at organizational and field level, and briefly addresses the potential use of data based on position identification results in The Army Authorization Documents System (TAADS).

1-2. PURPOSE AND SCOPE. The fundamental purpose of the method, policies and procedures prescribed herein is to provide a regularized and objective means of required personnel category identification. While mature judgment based upon individual experience and training remains a substantive part of the identification process, analytic and objective quantification of the key decision-making factors is its essence. Collectively, these methods are designed to achieve optimum personnel utilization, maintain a high level of performance and morale, and accomplish missions through the most economic and effective use of personnel resources. They minimize reliance upon subjective factors. They provide a sound basis for validating the identity of active force tasks in terms of the need for commissioned officer, warrant officer, enlisted or in-service civilian incumbents. Their proper use will directly enhance Army Staff ability to demonstrate the number of positions in each category needed to execute the Army mission, and will provide an improved procedure for distinguishing the identity of positions in future Army force structure adjustments.

1-3. BACKGROUND

a. Prior experience in structuring the Army personnel force to assure timely achievement of Army fiscal and manpower resource management goals demonstrated the need to more effectively and objectively determine the manpower category (commissioned officer, warrant officer, enlisted, civilian) required for efficient, economical performance of given tasks.

Not the least of these considerations have been the principles and practices which are a part of National policies and statutes governing the employment of military and civilian members. Recognizing this need, the Army commissioned development of the objective quantitative methods described in this pamphlet. They focus on active Army force structure in-service positions. The principles involved should, however, have application to Army Reserve and National Guard positions. They do not address the issue of in-service vs contractor performance of tasks executed by civilian personnel.

b Selected terms used in the Army position identification system are defined below:

(1) "Position" means the tasks assignable to one military or civilian member, consisting of:

- (a) The duties which must be performed.
- (b) The responsibilities which may be exercised.
- (c) The conditions of employment (for example: actual or potential exposure to hostile fire; geographic or physical location/environment; work hours; and other comparable conditions).
- (d) The level of employment (for example: level of executive and managerial skills required; technical skills and knowledge needed; level of position within the organization; and other comparable attributes).

(2) "Identification" means the designation of a position as requiring the assignment of a military or civilian member and, if military, the establishment of that position as requiring the assignment of either a commissioned officer, a warrant officer, or an enlisted member. The identification process should be completed taking full account of the official position description and/or the official military occupational specialty (MOS)/specialty classification description applicable to the position.

(3) Explicitly defined "factors" and "subfactors" are the means of identification of each position. They are applied using a sequential method employing decision-logic combined with a quantitative procedure employing a point-scoring process. The initial use of decision-logic permits many positions to be promptly identified in basic categories without resorting to unnecessary point-scoring assessments; selected factors provide a solidly objective identification of individual positions on a yes-no basis. Point-scoring, in turn, permits objective assessment of remaining positions which are defined by other factors/subfactors, each of which has differing relative influence on the final identification decision. These important factors and subfactors supporting both the decision-logic and point-scoring methods are the subject of Chapter 2.

(4) "In service civilian incumbents" means all Army civilian employees (U.S. direct hire, foreign national direct hire, and foreign national indirect hire). The term does not include contractor employees, and they are excluded from consideration in this handbook.

CHAPTER 2
IDENTIFICATION FACTORS AND SUBFACTORS

2-1. GENERAL. Selected Army directives, Department of Defense directives and instructions, certain other Executive Branch directives, and selected statutes, play some part in establishing criteria used in position identification. Those criteria are not always fully defined. In some cases, a degree of inconsistency may exist in definitions appearing in different directives. Finally, position identification analysts at organizational and field level will not always have access to the many written authorities containing applicable criteria. This chapter collects all of the applicable criteria, arrays that criteria in the form of position identification factors and subfactors, and provides complete and uniform definitions.

2-2. FACTOR/SUBFACTOR APPLICABILITY. The factors/subfactors in this chapter are intended to be all-inclusive. Instructions in Army directives mandating a specific identity for individual positions will be based upon the factors and processes prescribed herein (see paragraph 3-2. b). Recommendations on additions, deletions or modifications to existing factors/subfactors may be submitted in accordance with the instructions in the Foreword.

a. In applying these factors/subfactors to individual positions the precise definitions in this chapter should be used.

b. Personnel charged with position identification responsibility/authority must be thoroughly familiar with, and must fully understand these definitions.

c. It must be clearly understood that these factors/subfactors/definitions:

(1) Are not designed for use in determining relative officer, enlisted, or civilian grades for individual positions. Similarly, the methods described in Chapter 3 are not addressed to grade determination issues for any position.

(2) Are focused upon the requirements of positions and the duties which must actually be performed in that position -- not upon what any individual occupant may or may not be able to do in the same, or any other, position.

2-3. DISTINGUISHING BETWEEN MILITARY AND CIVILIAN POSITIONS. The factors listed and defined below will be applied in distinguishing between those positions which must be occupied by military personnel, and those which should be occupied by in-service civilians. For ease of reference, they are listed in the order in which they appear and are used in the identification method detailed in Chapter 3. That order in Chapter 3 is dictated more by method simplification and ease of operation needs than by considerations of relative precedence or importance of the factors; instead, these precedence and importance aspects are fully accounted for by the point scoring methods applied in Chapter 3.

a. When evaluating a specific position, the definitions of the factors which follow will allow clear cut yes-or-no answers to military versus civilian identification questions. Accordingly, further definition of subfactor elements is not necessary.

<u>FACTOR</u>	<u>DEFINITION</u>
COMBAT	Positions in units constituted to operate habitually in the forward portion of the active contingency or combat area. These units and their corresponding headquarters and service companies are organized under a Category I modification table of organization and equipment (MTOE) and are assigned primary missions which include that of destroying the enemy and seizing or holding ground; or of destroying the enemy by fire or other tactical action in support of or as assistance to the ground gaining forces. Combat units organized under Category I MTOE will be charged with secondary missions in exceptional cases only.

COMBAT SUPPORT

Positions in units constituted to operate habitually forward of the Army rear boundary in the active contingency or combat area. These units normally assigned to division, corps, or army, are organized under a Category II MTOE and are assigned primary missions which include direct support and assistance to combat units in the forward active portion of the combat area. Combat support units organized under Category II MTOE may be charged with execution of secondary missions which are related to or are an extension of the assigned primary missions.

COMBAT SERVICE SUPPORT

Positions in units constituted under a Category III MTOE to exercise the primary mission of providing operational assistance and services in direct support of combat and combat support units in the active contingency or combat area. Their primary mission responsibilities involve tasks which, if not performed or if appreciably delayed, could cause effectively immediate and direct impairment of combat capability. They normally operate in the communications zone of the combat theater or along the lines of communication leading thereto, to include the continental United States. Combat service support units organized under Category III MTOE will be charged with execution of secondary missions when possible; such secondary missions will be related to or an extension of the assigned primary missions.

PRETRAINED CONTINGENCY/ WARTIME AUGMENTATION

Table of Distribution and Allowance (TDA) positions requiring immediately deployable pretrained incumbents available for contingency/wartime augmentation of combat and direct combat/combat-service support MTOE units. Skills/capabilities maintained in these positions are essential for MTOE unit augmentation and casualty replacement either immediately or relatively soon after commencement of sustained contingency/wartime operations, but are not authorized to those MTOE units for manning in peacetime.

TDA positions may be placed in this category if they fall within the numerical and skill allocations included in periodic formal HQDA communications identifying pretrained contingency/wartime augmentation requirements for MTOE units. HQDA communications identifying these requirements will have taken full prior account of the possible availability of other Army Reserve and National

Guard resources which, depending upon the circumstances, the decisions of the President, and the actions of the Congress, may or may not be available in a national emergency.

Other TDA positions will not be identified for military incumbency in this category unless formally authorized and justified by HQDA.

MILITARY BY LAW
OR TREATY

Positions within or outside the Department of the Army requiring a military incumbent either by statute; or by virtue of Presidential or Secretary of Defense policies relating to U.S. treaty commitments and to related matters vital to the security of the United States; or by virtue of Joint Chiefs of Staff action approving the U.S. Army military manpower contribution to international military activities of NATO, the NATO Military Committee, United Nations Command Korea, Southeast Asia Treaty Organization (SEATO), Central Treaty Organization (CENTO), and other activities based upon international agreement.

CIVILIAN BY LAW
OR TREATY

Positions within or outside the Department of the Army requiring a civilian incumbent either by statute; or by virtue of Presidential or Secretary of Defense policies relating to U.S. treaty commitments and to related matters vital to the security of the United States; or by virtue of Joint Chiefs of Staff action approving the contribution by the Department of the Army of in-service civilian manpower to international activities of NATO, United Nations Command Korea, SEATO, CENTO, and other activities based upon international agreements.

EXTERNAL MILITARY
REQUIREMENT

Positions which are:

Within commands/agencies/organizations outside the Department of the Army, which have been designated for Army military incumbency by agreement between the Department and lateral or higher Federal authorities.

Within the Department of the Army and designated for military incumbency to meet contingency/wartime augmentation and mobilization needs in commands/agencies/organizations outside the Department, based upon agreement between the Department and lateral or higher Federal authorities.

EXTERNAL CIVILIAN REQUIREMENT

b. When evaluating a specific position, the definitions of the factors which follow may not allow clear cut yes-or-no answers to basic military versus civilian identification questions. Accordingly, these factors are first defined in terms of overall meaning, and are then further defined by subfactors which describe selected job elements considered most useful in making a proper position identification.

TDA positions dedicated to physical security and tasks some of which, if not performed or if appreciably delayed, could cause effectively immediate and direct impairment of combat capability. Primary mission/task responsibilities of the latter positions are to: provide physical security and law enforcement at installations primarily oriented toward troop activities; provide physical security and law enforcement at selected activities to prevent loss of destruction of government/military property essential to military readiness and the national security.

SECURITY SUBFACTORS

- Secure Nuclear Weapons; Command Posts; Troop Installations
- Supervise Prisoners
- Perform Perimeter Patrol; Fire Watch
- Prevent Crime
- Control/Issue ID Documentation
- Control Traffic

INTELLIGENCE

TDA positions dedicated to intelligence tasks some of which if not performed could cause effectively immediate and direct impairment of combat capability. Included in this category may be: positions assigned to selection and prioritization of requirements and allocation of resources; positions assigned to correlate, analyze and direct collection programs; positions required to develop focused intelligence summaries, devise techniques, perform intelligence tasks, and to control dissemination of intelligence information.

INTELLIGENCE SUBFACTORS

- Select/Prioritize Requirements; Allocate Resources
- Correlate/Analyze
- Direct Operational Program
- Devise Techniques; Perform Tasks
- Prepare Focused Summaries
- Control Dissemination

CURRENT MILITARY BACKGROUND/TRAINING REQUIRED

TDA positions requiring military experience and training more substantial than familiarity with military administrative or personnel administration procedures, or similar capabilities reasonably possessed by civilian employees. Included in this category may be:

Positions assigned to direct planning, management, military systems maintenance/test/evaluation, weapons development, and comparable indirect combat support activities in which substantive and recent military experience is necessary to insure that programs are directed toward essential military requirements.

Positions for personnel assigned as trainers conducting essential military training based on their own military training, practical military experience, and current military doctrine.

Positions requiring training in explosive ordnance disposal, special weapons controller, Special Forces aidman, and comparable combat support and combat service support-type functions; training for which is not normally available to or appropriate for civilian personnel.

CURRENT MILITARY BACKGROUND/TRAINING REQUIRED
SUBFACTORS

- Define Military Requirements
- Evaluate Doctrine and Tactics
- Determine Operational Suitability
- Test Operational Capability
- Train Troops
- Teach Doctrine and Tactics

MORALE, WELFARE, AND
RECREATION (MWR)
ACTIVITIES

Civilian Incumbency: TDA full-time operating and managerial positions in MWR activities, whether supported from appropriated or non-appropriated funds, will normally be staffed with civilians. Military incumbency of full-time positions will be authorized only in the specific circumstances prescribed below. Except in those circumstances, neither the essential tasks performed by incumbents of full-time MWR positions, nor their conditions of employment involve inherently military functions or expertise.

Military Incumbency: compelling objective justification exists for military delineation of TDA full-time positions in MWR activities only in the following circumstances:

When military leadership supervision is essential. Note that such supervision, in appropriate circumstances, may be a function of a military position at a higher level, or a designated position elsewhere in the organization of which the MWR activity is a part. Note, further, that military personnel may be assigned on an additional duty basis to exercise supervision over and serve as custodian of revenue producing MWR activities. (In any case, requests for permanent military identification of more than three positions per commissary store must be approved by HQDA and will be based only on the nonavailability of qualified civilians.)

As specified in this handbook for Rotation Base Requirements (see paragraph 2-6).

As specified in this handbook for Career Progression Requirements (see paragraph 2-6).

As specified in this handbook for No Qualified Civilians Available (see paragraph 2-6).

MORALE, WELFARE AND RECREATION (MWR) ACTIVITIES
SUBFACTORS

- Provide Required Military Leadership/Supervision (or the effectiveness of an MWR Activity will be Materially Compromised)
- Provide Military Leadership/Supervision Materially Contributing to the Maintenance of Military Morale and Welfare
- Supervise or Perform Work in an MWR Activity

COMMERCIAL/INDUSTRIAL
ACTIVITIES

Commercial/industrial activities provide a product or service that could be obtained from a private source manned and operated by non-Federal personnel in the civil sector of the economy. Commercial/industrial activities are listed and defined in OMB Circular A-76, DOD Directives 4100.15 and 4100.33, and AR 235-5. The listings are not exhaustively all-inclusive; neither the listings nor the accompanying definitions should be narrowly interpreted.

Civilian Incumbency: TDA positions in commercial/industrial activities are normally identified for civilian incumbency because they do provide a product or service that could otherwise be obtained from a private civilian source. Exceptions to allow military incumbency must be held to minimum essential levels, and must be objectively determined under the decision rules below.

Military Incumbency: Compelling objective justification for military incumbency within commercial/industrial activities must support each military position identification decision. Such compelling justification exists and military position identification will be prescribed when the positions concerned are assigned to combat, combat support, or combat service support units (see paragraph 2-3.a.). Military identification may also be prescribed when the positions concerned are assigned to TDA units and:

Factors/subfactors identified and described in this handbook result in military incumbency; or

The position concerned will be used for military incumbents who will either provide or receive retraining required for the effective discharge of military duties.

COMMERCIAL/INDUSTRIAL ACTIVITIES SUBFACTORS

- Subject to Deployment to Provide Support (for example, depot or intermediate level maintenance) to Meet Military Contingencies
- Essential for Training in Exclusively Military Skills
- Provide a Military Presence Materially Contributing to Maintenance of an Essential Focus on Military Requirements

AUTHORITY AND DISCIPLINE

TDA positions which require the incumbent to exercise direct military authority over military subordinates under the Uniform Code of Military Justice. The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of the military leader (regardless of grade) acting on behalf of the military commander and/or on his own recognition. Civilian supervision of the work of military personnel does not include command or the exercise of direct military authority, and the latter are not functions of civilian members of the Department. By the same token, supervision of military personnel does not, in and of itself, constitute justification for or necessarily require a military supervisor.

AUTHORITY AND DISCIPLINE SUBFACTORS

- Exercise Direct 24-hour Independent Responsibility for Military Authority and Discipline
- Maintain Military Morale Through Personal Leadership
- Supervise Work

TRADITION AND/OR CUSTOM

TDA positions which by tradition and custom have been filled by military personnel. Military identification of these positions either contributes essential "esprit" to military organizations, or is a visible aspect of the position lending essential credibility to the incumbent in the execution of the tasks and responsibilities inherent in the job. While other factors listed in this table may also play a role in the position identification decision with respect to

the following positions, they are examples of jobs which by tradition or custom are designated for military incumbency: aide (officer and enlisted); provost marshal; inspector general; U.S. Military Academy (USMA) professor and instructor as designated by Superintendent, USMA; secretary of service schools and colleges; command sergeant major; first sergeant; band leader; band member; recruiter and military career counselor; drill sergeant; chaplain's assistant; company level supply sergeant and company clerk; honor guard.

TRADITION AND/OR CUSTOM SUBFACTORS

- Provide Required Military Presence (Or the Effectiveness of the Position will be Materially Compromised)
- Provide a Military Presence Materially Contributing to the Effective Discharge of Tasks, and/or the Maintenance of Military Esprit
- Supervise or Perform Work in a Military Organization

UNUSUAL HOURS OR WORKING CONDITIONS

TDA positions, not otherwise requiring military incumbents, which entail unusual working hours or working conditions not compatible with or normally associated with civilian employment. Military incumbency will be prescribed for these positions, provided that HQDA (Director of Civilian Personnel) formally confirms that the unusual working hours or working conditions inherent in the position cannot reasonably be made a "condition of employment" in the successful recruitment of prospective civilian incumbents.

UNUSUAL HOURS OR WORKING CONDITIONS SUBFACTORS

- Life/Health Risk Exceeds Civil Standards
- Duty Tour Schedule/Length Exceeds Civil Standards for the Occupation
- Frequent Relocation
- Remote Location

2-4. DISTINGUISHING BETWEEN OFFICER AND ENLISTED POSITIONS. Within the military category positions identified through application of the factors in paragraph 2-3, the factors/subfactors listed and defined below will be applied in distinguishing between those positions which must be occupied by officers, and those which should be occupied by enlisted members. The process of making this distinction using these factors and the methods discussed in chapter 3, will also identify most of the commissioned officer position requirements in the total officer requirements pool (paragraph 2-5 addresses those factors/subfactors which identify the remaining pool of officer positions by commissioned or warrant status).

a. When evaluating a specific position, the definitions of the factors which follow will allow clear cut yes-or-no answers to officer versus enlisted identification questions. Accordingly, further definition of subfactor elements is not necessary.

<u>FACTOR</u>	<u>DEFINITION</u>
COMMAND, PLATOON OR ABOVE	Positions requiring the discharge of direct leadership authority and responsibility, through the exercise of command of military units at platoon or higher organizational level. (Note: Warrant officers may not command units which include commissioned officers.)
DISCIPLINARY POWERS (UCMJ)	Positions requiring the incumbent, in the interest of good order and discipline, to exercise powers prerequisite to the imposition of judicial or nonjudicial punishment under the Uniform Code of Military Justice (UCMJ).
OFFICER/ENLISTED BY LAW OR TREATY	Positions requiring an officer (commissioned officer or warrant officer status may be explicitly prescribed), or an enlisted member, either by statute; or by virtue of Presidential or Secretary of Defense policies relating to U.S. treaty commitments and to related matters vital to the security of the United States; or by virtue of Joint Chiefs of Staff action approving the contribution by the Department of the Army of military manpower to international activities of NATO, the NATO Military Committee, United Nations Command Korea, Southeast Asia Treaty Organization (SEATO), Central Treaty Organization (CENTO), and other activities based upon international agreement.

b. When evaluating a specific position, the definitions of the factors which follow may not allow clear cut yes-or-no answers to basic officer versus enlisted identification questions. Accordingly, these factors are first defined in terms of overall meaning, and are then further defined by subfactors which describe selected job elements considered most useful in making a proper position identification.

<u>FACTOR</u>	<u>DEFINITION</u>
KNOWLEDGE	<p>The nature and extent of information or facts which the incumbent must understand to do acceptable work (e.g., steps, procedures, practices, rules, policies, theories, principles, and concepts) and the nature and extent of the skills needed to apply that knowledge.</p> <p><u>KNOWLEDGE SUBFACTORS</u></p> <ul style="list-style-type: none">• Advanced degree required• Mastery of a professional field to generate and develop new hypotheses and theories• Knowledge of a wide range of concepts, principles and practices in a professional occupation• Knowledge of an extensive body of regulations on a wide variety of functions• Knowledge of basic operations which require some previous training• Broad knowledge of military operations and subjects
SUPERVISORY CONTROL	<p>The nature and extent of direct or indirect controls exercised by the incumbent. Controls are exercised in the way assignments are made, instructions given, priorities and deadlines are set, and objectives and boundaries are defined. Imposing these controls in ways calculated to best achieve unit goals requires coordination and personal contact at the management and supervisory level outside the immediate activity.</p>

SUPERVISORY CONTROL SUBFACTORS

- Provides direction on broad missions/functions; coordinates with top management
- Sets overall objectives; establishes resource levels; consults other managers
- Makes assignments, defines objectives and priorities
- Assures technical accuracy of work performed
- Plans and carries out work in accordance with accepted practice
- Works as instructed and consults supervisor as needed

JUDGMENT AND GUIDELINES

The importance and independence of judgments and decisions required of the incumbent by the position. The nature, variety and possible impact of decisions. The nature of the guidelines (directives, policies, practices) available to the incumbent, and the extent of individual judgment exercised by the incumbent in the successful application of guidelines. The less well-defined the guidance for decisions, the higher should be the point score rating; the more specific and detailed the guidance, the lower should be the point score.

JUDGMENT AND GUIDELINES SUBFACTORS

- Interpret and apply broadest guidelines and legislation
- Adapt general, but limited, guidelines and develop improved applications
- Interpret and apply detailed guidelines; analyze results; recommend changes
- From established procedures/guidelines, select and apply best approach
- Apply specific guidelines effectively
- Follow detailed guidelines; seek guidance for all deviations

DECISION-MAKING
AND COMPLEXITY

Accurately identifying the different ways to complete a task, and selecting the most effective and timely method. The level of difficulty and the degree of originality required will be determined by the nature, number, variety and intricacy of tasks, steps, processes or methods available to execute the mission tasks.

DECISION-MAKING AND COMPLEXITY SUBFACTORS

- Decide concepts, theories, programs, content and character of operations
- Originate techniques, establish criteria, decide how personnel will be used.
- Direct varied workforce, interpret data, plan work, make refinements
- Decide what needs to be done within established alternatives
- Select source of information and type of action, or authorize a direction, based upon written guidance
- Follow specific instructions on work quickly mastered

2-5 DISTINGUISHING BETWEEN COMMISSIONED AND WARRANT OFFICER POSITIONS.

Within the remaining group of officer positions identified through application of the factors in paragraph 2-4, the factors/subfactors listed and defined below will be applied to make the distinction between commissioned and warrant officer requirements. These definitions may not allow clear cut yes-or-no answers to basic commissioned versus warrant officer identification questions. Accordingly, these factors are first defined in terms of overall meaning, and are then further defined by subfactors which describe selected job elements considered most useful in making a proper position identification. Because a large majority of commissioned officer positions will have already been identified using the factors in paragraph 2-4, the factors/subfactors defined below have at least as heavy a focus upon warrant officer position characteristics, as upon commissioned officer position attributes.

<u>FACTOR</u>	<u>DEFINITION</u>
KNOW-HOW*	<p>The sum total of every kind of skill, however acquired, needed for acceptable job performance. The accumulated amount of knowledge, managerial comprehension, and human relations skills required to perform the duties inherent in the position.</p> <p><u>KNOW-HOW SUBFACTORS</u></p> <ul style="list-style-type: none"> • Staff or Line planning/programming/management/organization responsibilities • Responsibility for military operations and force management • In-depth expertise in several enlisted technical skills • Employ special technical skills; operate complex equipment • Supervise technical service activity
PROBLEM SOLVING*	<p>The intensity of know-how required to identify, define, and resolve a problem. The amount of original, self-starting thinking required by the position for analyzing, evaluating, creating, reasoning, arriving at and making conclusions.</p> <p><u>PROBLEM SOLVING SUBFACTORS</u></p> <ul style="list-style-type: none"> • Interpret policy and doctrine • Set mission goals and evaluate progress • Perform technical middle management functions • Solve technical operating problems • Direct personnel using proven methods
ACCOUNTABILITY*	<p>Answerability for actions demanded by the position, and for consequences of action taken. The impact of the job on end results, measured against the latitude or freedom to act.</p>

* Source is the Third Quadrennial Review of Military Compensation, Staff Studies and Selected Supporting Papers, Volume VIII, Department of Defense, December 1976.

ACCOUNTABILITY SUBFACTORS

- Control substantial resources
- Develop functional policies and advise on implementation
- Responsible for administrative and support services
- Receipt and account for property

2-6. MANAGEMENT OF THE MILITARY FORCE STRUCTURE. Factors and subfactors applied thus far in this chapter have been focused upon the tasks associated with each position, and the conditions under which they must be performed. There have been some exceptions. For example, positions requiring a given identity by law or treaty are identified accordingly, without attempting to reexamine the need for that identity in terms of position tasks or conditions of employment. By way of further example, the identity of selected positions is heavily influenced by custom and tradition. In those cases, however, the definitions in this chapter and the point scoring methods prescribed in chapter 3 do provide a substantive measure of re-examination in terms of job impact and environment. Finally, peacetime manpower MTOE limitations make it necessary to meet wartime augmentation needs by giving some TDA positions a military identification which might not otherwise be required. In some measure, all of these considerations limit DA flexibility in identifying active army positions by manpower category. Ways of coping with these kinds of limitations on an on-going basis are built into the factors/subfactors in preceding paragraphs. There are three remaining principal force management limitations which may vary widely based on the changing force structure, the composition of the military personnel force, and the availability of in-service civilians at selected locations and in selected skills. They cannot be managed exclusively from field level because their resolution requires access to total active force data; MACOM-wide or unit-wide data will not suffice. Accordingly, HQDA instructions must play a prime role in determining the identity of positions affected by these major management limitations. The factors listed and defined below provide for this essential HQDA participation in the category identification of affected positions.

FACTOR

DEFINITION

ROTATION BASE
REQUIREMENTS

CONUS TDA positions which would not otherwise require military incumbents, but which are identified for military incumbency to provide balanced and reasonable domestic/overseas terms of service for military personnel, based upon overseas tour lengths and limitations prescribed by the Secretary of Defense.

For CONUS TDA positions with rotation base problems, HQDA has implemented a rotation base policy and publishes instructions annually in a letter titled "Manpower Policy to Assist in Stabilization of the Rotation Base." Skills with imbalance problems are listed and identified by MACOM. Commanders are instructed to "protect" in their commands the corresponding skills by MOS, in the magnitudes prescribed by HQDA.

For CONUS TOA positions for skills which are severely imbalanced by having more than 55% of their authorizations overseas an enlisted Space Imbalanced MOS (SIMOS) program has been developed. Implementation of that program is published in DA Circular 611-62. Civilianization of skills in these MOS is prohibited.

Remaining CONUS TDA positions will not be defined for military incumbency on grounds of Rotation Base Requirements unless the positions concerned are identified by a skill formally cited by HQDA as experiencing rotation base skill imbalance problems.

CAREER PROGRESSION
REQUIREMENTS

TDA positions which would not otherwise require military incumbents, but which are identified for military incumbency to provide balanced and reasonable promotion flow and career progression to military personnel. Career progression requirements must be computed centrally since they are based upon total active force needs in each military identity (commissioned officer, warrant officer, enlisted). TDA positions will not be identified for military incumbency on grounds of career progression requirements unless the positions concerned are formally cited for such identification by HQDA, by MOS and grade.

NO QUALIFIED
CIVILIANS
AVAILABLE

TDA positions, not otherwise requiring military incumbents, which are dedicated to functions which must be performed by government personnel in the execution of governmental responsibilities, but for which no qualified civilians are available. Military incumbency will be prescribed for these positions, provided that:

All reasonable efforts have been made locally to recruit qualified civilians.

Within 12 months after initial designation for military incumbency, HQDA formally confirms qualified civilians from other geographical areas are not available. Normally, foreign national direct hire and U.S. direct hire categories are interchangeable. In view of this, if the local labor market in an overseas area cannot supply the required skills, the recruitment of civilian applicants from the CONUS must be considered.

Conversion to civilian incumbency will be effected when qualified civilians do become available.

CHAPTER 3

METHOD

3-1. GENERAL. The position identification procedure is sequential. It combines decision logic and point score analyses. It applies to all positions in the active Army force structure, with the exceptions discussed in paragraph 3-2.

a. Decision logic tables are used to analyze a series of if-then relationships in tabular form. They focus attention on the precise information necessary to choose between two alternatives.

b. Point scores are used when the potential number of factors/subfactors involved in a decision effectively forecloses concise definition of a series of if-then relationships in tabular form. Point scoring procedures presented here combine features of a number of job evaluation methods, including whole job ranking, point rating, and factor comparison.

3-2. EXCLUSIONS. The procedures prescribed in this handbook are intended for application to all active Army positions, except as indicated below.

a. The position identification process prescribed in this handbook is neither used nor required for military positions authorized in the following individual groupings: cadets, students, trainees, holdees, patients, transients, prisoners. Designation of incumbency for these military positions is determined by law in the case of cadets; and is a quantitative function of the number of active duty military personnel authorized in each military category for the remaining groupings.

b. On the effective date of this handbook, other positions in the active Army force structure which are specifically designated in current formal, numbered Army administrative publications (listed in DA Pamphlet 310-1), as commissioned officer, warrant officer, enlisted, or civilian, may be excluded for a period of up to one year from consideration under the procedures prescribed in this handbook. Within that one year period, the existing basis for the "by direction" category identification of such positions will be reexamined. That reexamination

will give full consideration to the factors, subfactors, and principles in this handbook. Continuation beyond the one year exclusion period of category identification by direction, rather than under the procedures in this handbook, will require formal HQDA approval.

3-3. IDENTIFICATION PROCESSES. Ideal position identity is established in three steps of an iterative, sequential process. Step 1 identifies positions as either civilian or military. Step 2 identifies those military positions designated for officer or enlisted incumbency. Step 3 differentiates between commissioned officer and warrant officer positions. Each step includes both decision logic and quantitative alternatives. In the process of applying these alternatives using the decision tables described below, some aspects of steps 1 and 2, or steps 2 and 3 may be completed by the analyst at the same time in the same table. The decision tables take account of and apply to the individual position identification process those Army-wide force structure limitations managed by the Army Staff from HQDA level. For positions affected by these Army-wide limitations, a selected alternative identity is established in lieu of the ideal identity which would otherwise be prescribed.

a. To assure full assessment of each function and each aspect of the conditions of employment of a given position, the definition and categorization process for each position should begin with step 1 as represented by Table 1, described below. The process is structured to employ consecutively numbered tables. Each table uses an if-then logical construct to accurately lead the user through a regularized, objective evaluation process taking full account of each of the position identification factors defined in Chapter 2. A fundamental prerequisite is that the user fully understand and conform to those chapter 2 definitions throughout the categorization process.

b. Equally important to accurate position identification is the requirement that the identification analyst be familiar with the organization to which the position is assigned. Detailed information concerning the functions, specific duties and any unique characteristics of each

position must either be known to the analyst or obtained through work center visits.

3-4. USING THE POSITION IDENTIFICATION TABLES. Because the categorization of each position begins with analysis under the rules prescribed in Table 1, and because the process is designed to make logical use of Tables 1 through 6 in sequence, the tables are reproduced in consecutive order at the end of this chapter. Begin with Table 1; move through the decision process prescribed by the if-then logic in the column headings; proceed to the next table specified in column IV of table 1, to continue the decision process. Each subsequent table uses a similar process, culminating with Table 6. As you move through each table, the final column of each will indicate the correct table to move to next for the position you are evaluating. The content and use of each table are discussed below:

a. Table 1 is designed to initially distinguish between military and civilian positions by first applying those rules (factors) which clearly define a position's ideal identity on a yes-no basis. Some provide a clear-cut yes-no answer (rules 1 through 8). Others do not (rules 9 through 16).

b. Table 2 uses point scores to establish the military or civilian category for positions not clearly defined by the yes-no process under rules 9 through 16 of Table 1. The subfactors defined in Chapter 2 for each rule (factor) concerned are point scored, and the results totalled. That total score determines military or civilian identification, subject to further review of military positions on Table 3A, and civilian positions on Table 5.

(1) To use Table 2 correctly, the analyst must determine what percentage of worktime is covered by the subfactors described on that table. Each subfactor has a permanent numerical value which is displayed in the lower left hand corner of each subfactor block. The permanent value is multiplied by percentage of worktime covered, to produce a point score for applicable subfactors. Point scores are totalled in Column III for each applicable rule. Rule totals are aggregated and the aggregate score if less than 120 is entered in the space provided in Column III for Rule 25; scores of 120, or above, are entered in the space

provided in Column III for rule 26. For civilian positions (aggregate score less than 120) proceed directly to Table 5. Military positions (aggregate score 120, or above) proceed to Table 3A.

(2) Particular care must be taken to stay within the percentage limits prescribed for Table 2 rules. These percentage limitations are specified in succeeding captions within Column II, preceding the rules and subfactors to which they apply.

(3) Do not narrowly interpret the language describing each subfactor. Attempt to account for all of the worktime contemplated by the MOS and/or position description, and other available information pertaining to the position being analyzed.

c. With few exceptions, Table 1 and Table 2 results will require further analysis under succeeding tables before a final position identity decision is made.

d. Tables 3A, 3B, and 4 are designed to distinguish between commissioned officer, warrant officer, and enlisted categories for all positions identified as military under Tables 1 and 2.

(1) Table 3A identifies certain officer positions by applying selected factors which allow clear officer definition of these positions on a yes-no basis. In some cases, such as where provisions of law are involved, concurrent identification of a commissioned, warrant officer or enlisted requirement for specific positions can be made.

(2) Table 3B uses point scores. Point score values are fixed and do not require a percentage of worktime estimate such as that used in Table 2. Fixed score values appear in the lower right hand corner of each subfactor block. While more than one subfactor within a given rule (factor) may apply to the position being analyzed, you are to select for that rule only the single subfactor with the highest point score that best describes the position. Score totalling and aggregation is essentially similar to that used on Table 2. Table 3B focuses primarily upon distinguishing between the officer and enlisted categories. In the process, however, it will also define the large majority of DA commissioned officer requirements. The scoring scale is divided into three levels. Top-level scores clearly define commissioned officer positions; middle-level scores identify officer positions, but do not distinguish between

commissioned and warrant officers; scores on the remainder of the scale clearly define enlisted positions.

(3) Table 4 distinguishes between commissioned officer and warrant officer categories for those positions placed in the overall officer category under Tables 3A and 3B. Table 4 uses point scores based on know-how, problem solving, and accountability job factors. As in the case of Table 3B, point score values are fixed, and a similar process is used to compute the total score for the table.

e. Tables 1 through 4 allow essentially ideal category identifications for each position at organizational and field level, without taking account of certain major Army-wide unique manpower resource limitations and management requirements discussed in paragraph 2-6. Resolution of these limitations and requirements at organizational and field level must be based on formal guidance/direction from HQDA. Table 5 is designed to provide a means of applying HQDA guidance/direction at the appropriate point in the sequential position identification process.

3-5. MAINTAINING/RECORDING CURRENT POSITION IDENTIFICATION. The sequential position identification process terminates in Table 6, which is not a decision tool, but serves to record the essential results of the step-by-step analysis completed in Tables 1 through 5. Organization characteristics and location of the position are included. Table 6 provides a long-term record of the sequential position identification decision and the "key rules" on which that identification decision was based. Key rules selection/recording, and other entries on Table 6, will be completed as follows:

a. Column II. Complete all item entries called for in Column I, by reference to the MTOE or TDA on which the position is carried.

b. Column IV. Enter in the blank spaces provided, the alphabetical/numerical rule designator, or the score used, from each table listed in Column III which was applicable to the position.

c. Column V. For the position identity determined by the analyst using the procedures described in this chapter, enter in the upper block of the "Rule" column the number of the Table 1 or Table 2 rule applied to the position (NOTE: the applicable rule will already have been identified in Column IV, and only one Table 1 or Table 2 rule will have been so identified). For the military position identity selected, enter in the lower block of the "Table" and "Rule" columns the key table/rule designator applicable to that position, selected as follows:

(1) For any position to which a Table 5 rule was applied, only that table and rule will be selected.

RATIONALE: A Table 5 rule, when applied, has the direct and immediate effect of establishing an alternative identity based essentially on that rule alone. It is, thus, the key determinant. Were it not for application of that Table 5 rule, the position would have been given a civilian identity.

(2) Commissioned Officer Positions. Where a Table 5 rule was not applied, the commissioned officer identification decision will have been made either: based on "law or treaty" under Table 3A rule (a); or using point scores under Table 3B rule (1), or Table 4 rule (p), but not both. Whichever one of those three table/rule entries appears in Column IV of Table 6 will be designated as the key table/rule.

RATIONALE: Either "law or treaty" provisions applied by Table 3A, or the point scoring analyses of position characteristics in Tables 3B or 4, are the rational and immediate basis for the distinction between the commissioned officer and warrant officer categories. In the final analysis, then, one of these three alternatives is the key determinant. (NOTE: It should be recognized that Table 3A rule (c) definitions will also play a significant initial analysis role in officer position identification).

(3) Warrant Officer Positions. Where a Table 5 rule was not applied, the warrant officer identification decision will have been made either: based on "law or treaty" under Table 3A rule (b); or using point scores under Table 4 rule (q). Whichever one of those two table/rule entries appears in column IV of Table 6 will be designated as the key table/rule.

RATIONALE: Either "law or treaty" provisions applied by Table 3A, or the point scoring analysis of position characteristics in Table 4, is the rational and immediate basis for the distinction between the commissioned officer and warrant officer categories. In the final analysis, then, one of these two alternatives is the key determinant. (NOTE: It should be recognized that Table 3A rule (c) definitions will also play a significant initial analysis role in officer position identification).

(4) Enlisted: Where a Table 5 rule was not applied, the enlisted identification decision will have been made either: based on "law or treaty" under Table 3A rule (d); or using point scores under Table 3B rule (j). Whichever one of those two table/rule entries appears in Column IV of Table 6 will be designated as the key rule.

RATIONALE: Either "law or treaty" provisions applied by Table 3A, or the point scoring analysis of position characteristics in Table 3B, is the rational and immediate basis for the distinction between the enlisted and officer categories. In the final analysis, then, one of these two alternatives is the key determinant.

(5) Civilian Positions. Additional table/rule entries are not required, since the civilian identification final decision is made either under Table 1 or Table 2, and the appropriate entries are already made in the upper blocks of the "Table" and "Rule" columns as prescribed in subparagraph c, above.

(6) Validation. Completion of Table 6 and the position identification process should be validated by entry of analyst name and grade, and current date, in the space provided in Column VI.

d. Data for Management Information Systems. Consideration is being given to inclusion in the Army Authorization Documents System (TAADS) of selected position identification data. These data elements might be included on automated manpower documents immediately following paragraph/line number. They would comprise a three-digit rules designator to record the key rules entered in Column V, of Table 6, which are the basis for the identification decision on each individual position.

(1) The first two digits would be dedicated to recording the Column V upper block rule number (i.e., from Tables 1 or 2), which would use designators "01" through "08," "25" and "26."

(2) The final digit would be dedicated to Column V lower block alphabetical rule designators (i.e., from Tables 3A, 3B, 4, and 5), which would use designators "a," "b," "d," "j," "l," "p" through "t."

(3) In automated form, these data would be used to provide summary position identification information and the rationale supporting identification of active Army in-service manpower categories. They would also be particularly useful in comparative analyses of like units, or analyses by skill, condition of employment, etc., to assure consistency in the identification of like positions, among other things. Finally, they would provide a data source for use in control and discipline of the system, permit audit/investigation on an exception basis, and allow data retention over time to serve as a vehicle for trend and other analyses.

e. To provide a detailed data source for analysis, position identification justification, and future use, consideration is being given to distribution of a consolidated position identification file. The consolidated file would contain Tables 1 through 6, in order, on a single folded sheet. It would be used as a work sheet, justification, and file document for individual active Army positions. A prototype of the consolidated file follows Table 6 at the end of this chapter.

TABLE 1

IDENTIFY MILITARY AND CIVILIAN POSITIONS (APPLY RULES IN CONSECUTIVE ORDER)

R U L E	I. IF THE POSITION FITS THE DEFINITION OF:	II. THEN RULES:	III. AND POSITION IDENT- ITY WILL BE ESTAB- LISHED AS:	IV. SUBJECT TO FURTHER DEFINI- TION UNDER:
(1)	COMBAT	(2) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(2)	COMBAT SUPPORT	(3) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(3)	COMBAT SERVICE SUPPORT	(4) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(4)	PRETRAINED CONTINGENCY/WARTIME AUGMENTATION	(5) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(5)	MILITARY BY LAW OR TREATY	(6) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(6)	CIVILIAN BY LAW OR TREATY	(7) THROUGH (16) WILL NOT BE APPLIED	CIVILIAN	TABLE 6*
(7)	EXTERNAL MILITARY REQUIREMENT	(8) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(8)	EXTERNAL CIVILIAN REQUIREMENT	(9) THROUGH (16) WILL NOT BE APPLIED	CIVILIAN	TABLE 6*
(9)	SECURITY	(10) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(10)	INTELLIGENCE	(11) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(11)	CURRENT MILITARY BACKGROUND/ TRAINING REQUIRED	(12) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(12)	MORALE, WELFARE, AND RECREATION (MWR) ACTIVITIES	(13) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(13)	COMMERCIAL/INDUSTRIAL ACTIVITIES	(14) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(14)	AUTHORITY AND DISCIPLINE	(15) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(15)	TRADITION AND/OR CUSTOM	(16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(16)	UNUSUAL HOURS OR WORKING CONDITIONS	(PROCEED TO COLUMN III)	NOT YET FINALIZED	TABLE 2

* No further position definition is required for these positions; proceed directly to Table 6 and make appropriate entries.

TABLE 2

POINT SCORE IDENTIFICATION OF MILITARY AND CIVILIAN POSITIONS

R UN L E	I. IF THE POSITION FITS THE DEFINITION OF:	II. THEN- ● SELECT THE BLOCKS THAT APPLY TO THE POSITION; ● STATE PERCENT OF WORK TIME COVERED BY EACH BLOCK YOU SELECTED; ● AND COMPUTE THE POINT SCORE FOR EACH BLOCK YOU SELECTED.										III. NOW TOTAL ● EACH RULE ● COLUMN III	IV. AND POSITION IDENTITY WILL BE ESTABLISHED AS:	V. SUBJECT TO FURTHER DEFINITION UNDER:
		TEACHING TECHNIQUE	CONTROL AREA NO DISCIPLINE	PREVENT CRIME	PERFORM UNDER PATROL FIRE WEAPON	SUPERVISE PRISONERS	SECURE NUCLEAR WEAPONS INSTRUMENTALITY	TEACH DOCTRINE AND FACTS	PREPARE FOCUSSED SUBMITTALS	DEVELOP TECHNIQUES FOR TAKING FIGHTS	DIRECT OPERATIONAL PROGRAMS	CHIEF RATE/ ANALYZE	SELECT PRIORITIES REQUIREMENTS ALLEGEDLY IN BUNKERS	
(17)	SECURITY	12X %	40X %	171X %	200X %	240X %	300X %	120X %	171X %	200X %	240X %	300X %	400X %	
(18)	INTELLIGENCE	120X %	171X %	200X %	240X %	300X %	400X %	120X %	171X %	200X %	240X %	300X %	400X %	
(19)	CURRENT MILITARY BACKGROUND/TRAINING REQUIRED	120X %	133X %	150X %	171X %	240X %	300X %	120X %	171X %	200X %	240X %	300X %	400X %	
(20)	MORALE WELFARE AND RECREATION (MWR) ACTIVITIES	6X %	6X %	30X %	30X %	60X %	60X %	120X %	120X %	120X %	120X %	120X %	120X %	
(21)	COMMERCIAL/ INDUSTRIAL ACTIVITIES	60X %	60X %	90X %	90X %	120X %	120X %	120X %	120X %	120X %	120X %	120X %	120X %	
(22)	AUTHORITY AND DISCIPLINE	24X %	24X %	60X %	60X %	120X %	120X %	120X %	120X %	120X %	120X %	120X %	120X %	
(23)	TRADITION AND/OR CUSTOM	24X %	24X %	60X %	60X %	120X %	120X %	120X %	120X %	120X %	120X %	120X %	120X %	
(24)	UNUSUAL HOURS OR WORKING CONDITIONS	60X %	60X %	120X %	120X %	160X %	160X %	240X %	240X %	240X %	240X %	240X %	240X %	
(25)														
(26)														
TOTAL IF BELOW 120														CIVILIAN
TOTAL IF 120 OR ABOVE														MILITARY
														TABLE 5
														TABLE 3A

TABLE 5A

IDENTITY OFFICER AND ENLISTED POSITIONS

R U L E	I. IF THE POSITION FITS THE DEFINITION OF:		II. THEN SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:		III. NOW ENTER SCORE FOR RULE TOTAL COLUMN III		IV AND POSITION ID- ENTITY WILL BE ESTABLISHED AS:		V. SUBJECT TO:	
	I. THE POSITION:		II. THEN:		III. AND POSITION IDENTITY WILL BE ESTABLISHED AS:		IV.		V.	
(a)	FITS THE DEFINITION OF: • COMMISSIONED OFFICER BY LAW OR TREATY		RULE (d), (c), (d) and (e) WILL NOT BE APPLIED		COMMISSIONED OFFICER		NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6		NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6	
(b)	FITS THE DEFINITION OF: • WARRANT OFFICER BY LAW OR TREATY		RULE (c), (d) and (e) WILL NOT BE APPLIED		WARRANT OFFICER		NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6		NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6	
(c)	FITS THE DEFINITION OF: • COMPANY, PLATOON OR ABOVE; OR • DISCIPLINARY POWERS (DMP); OR • OFFICER BY LAW OR TREATY		RULE (d) and (e) WILL NOT BE APPLIED		OFFICER		FURTHER DEFINITION UNDER TABLE 6		FURTHER DEFINITION UNDER TABLE 6	
(d)	FITS THE DEFINITION OF: • ENLISTED BY LAW OR TREATY		RULE (e) WILL NOT BE APPLIED		ENLISTED		NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6		NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6	
(e)	DOES NOT FALL UNDER RULES (a), (b), (c), or (d)		(PROCEED TO COLUMN III)		NOT YET FINALIZED		FURTHER DEFINITION UNDER TABLE 6		FURTHER DEFINITION UNDER TABLE 6	

TABLE 5B

POINT SCORE IDENTIFICATION OF OFFICER AND ENLISTED POSITIONS

R U L E	I. IF THE POSITION FITS THE DEFINITION OF:		II. THEN SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:		III. NOW ENTER SCORE FOR RULE TOTAL COLUMN III		IV AND POSITION ID- ENTITY WILL BE ESTABLISHED AS:		V. SUBJECT TO:	
	I. THE POSITION:		II. THEN:		III. AND POSITION IDENTITY WILL BE ESTABLISHED AS:		IV.		V.	
(a)	KNOWLEDGE		Knowledge of Basic Operations Which Require Specialized Training	30	Knowledge of a Wide Range of Principles and Practices in a Professional Occupation	100	History of a Field Generate and Develop New Hypotheses and Theories	450	Advanced Degree Required	
(b)	SUPERVISORY CONTROL		Plan and Control and Work in Accordance with Accepted Practice	20	Taken Assignments, Define Objectives and Priorities	90	Sets Overall Objectives; Establishes Resource Levels; Coordinates Commitments Managers	450	Provides Direction on Broad Missions/ Functions; Coordinates with Top Management	
(c)	HIGHERMENT AND GUIDELINES		Apply Specific Guidelines Effectively	20	From Established Procedures/ Guidelines; Apply and Recommend Best Approach	60	Interpret and Apply Limited Guidelines and Develop Alternatives	450	Interpret and Apply Broadest Guidelines and Legislation	
(d)	DECISION MAKING AND COMPLEXITY		Follow Detailed Instructions on Mark Quickly Numbered	15	Select Source of Information and Analyze Data, Direction, Based Upon Written Guidance	20	Decide What Needs to be Done Establish Plan Work Alternatives	90	Originate Concepts, Theories, Programs, Conduct Operations How Personnel Will Be Used	
(e)						60		450		
(f)						90		450		
(g)						300		450		
(h)						450		450		
(i)						450		450		
(j)						450		450		
(k)						450		450		
(l)						450		450		
(m)						450		450		
(n)						450		450		
(o)						450		450		
(p)						450		450		
(q)						450		450		
(r)						450		450		
(s)						450		450		
(t)						450		450		
(u)						450		450		
(v)						450		450		
(w)						450		450		
(x)						450		450		
(y)						450		450		
(z)						450		450		

TABLE 4

POINT SCORE IDENTIFICATION OF COMMISSIONED OFFICER AND WARRANT OFFICER POSITIONS

P U L E	I. REVIEW THE POSITION AND THE DEFINITION OF:	II. THEN FOR EACH PILE SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:						III. HOW ENTER SCORES AND ADD COLUMN	IV. AND POSITION IDENTITY WILL BE ESTABLISHED IN:
		Supervise Technical Service Activity	Supervise Special Technical Skills, Operate Complex Equipment	Perform Special Technical Functions	Perform Technical Middle Management Functions	Develop Functional Policies and Administer Implementation	Set Mission Goals and Evaluate Progress		
(m)	KNOW-HOW	30	70	100	160	180			
(n)	PROBLEM SOLVING	40	70	90	140	180			
(o)	ACCOUNTABILITY								
(p)								TOTAL IF 360 OR ABOVE	COMMISSIONED OFFI- CER - ENTER ON TABLE 6
(q)								TOTAL IF BELOW 360	WARRANT OFFICER - ENTER ON TABLE 6

TABLE 5

IDENTIFY MILITARY FORCE STRUCTURE POSITION REQUIREMENTS

P U L E	I. IF THE POSITION FITS THE DEFINITION OF:	I. THEN - POSITION IDENTITY WILL BE ESTABLISHED:	III. AND ESTABLISHED IDENTITY WILL BE ENTERED IN:
(r)	POTATION BASE REQUIPEMENTS		TABLE 6
(s)	CAPEEP PROGRESSION REQUIPEMENTS	AS PRESCRIBED IN THE GOVERNING HODA DIPECTIVE, AS AMENDED	
(t)	NO QUALIFIED CIVILIANS AVAILABLE		

TABLE 6									
RLCORD POSITION IDENTITY									
I.	II.	III.	IV.		V.			VI.	
ITEM	ENTER DESIGNATORS	TABLE NUMBER	RULE DESIGNATOR(S)	ENTER: SCORE	IDENTITY	KEY TABLE	KEY RULE	NAME OF ANALYST/GRADE	DATE
MTDE		1	() *		COMMISSIONED OFFICER	1 or 2	()		
TDA		2	(25)		WARRANT OFFICER	1 or 2	()		
CCNUM		3A	()		ENLISTED	1 or 2	()		
EDATE		3B	(1)		CIVILIAN	1 or 2	()		
PARA-GRAPH		4	(p)						
LINE		5	()						
POSITION TITLE									

* NOTE FOR COLUMN IV, TABLE 1: Enter only one of rules (1) through (8) from Table 1. If none of those rules apply, make no entry in Column IV for Table 1 -- leave blank. Do not enter any one of rules (9) through (16) in Column IV for Table 1.

TABLE 1

IDENTIFY MILITARY AND CIVILIAN POSITIONS (APPLY RULES IN CONSECUTIVE ORDER)

RULE	I. IF THE POSITION FITS THE DEFINITION OF:	II. THEN RULES:	III. AND POSITION IDENT- ITY WILL BE ESTAB- LISHED AS:	IV. SUBJECT TO FURTHER DEFINI- TION UNDER:
(1)	COMBAT	(2) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(2)	COMBAT SUPPORT	(3) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(3)	COMBAT SERVICE SUPPORT	(4) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(4)	PRETRAINED CONTINGENCY/WARTIME AUGMENTATION	(5) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(5)	MILITARY BY LAW OR TREATY	(6) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(6)	CIVILIAN BY LAW OR TREATY	(7) THROUGH (16) WILL NOT BE APPLIED	CIVILIAN	TABLE 6*
(7)	EXTERNAL MILITARY REQUIREMENT	(8) THROUGH (16) WILL NOT BE APPLIED	MILITARY	TABLE 3A
(8)	EXTERNAL CIVILIAN REQUIREMENT	(9) THROUGH (16) WILL NOT BE APPLIED	CIVILIAN	TABLE 6*
(9)	SECURITY	(10) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(10)	INTELLIGENCE	(11) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(11)	CURRENT MILITARY BACKGROUND/ TRAINING REQUIRED	(12) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(12)	MORALE, WELFARE, AND RECREATION (MWR) ACTIVITIES	(13) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(13)	COMMERCIAL/INDUSTRIAL ACTIVITIES	(14) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(14)	AUTHORITY AND DISCIPLINE	(15) THROUGH (16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(15)	TRADITION AND/OR CUSTOM	(16) MAY ALSO APPLY	NOT YET FINALIZED	TABLE 2
(16)	UNUSUAL HOURS OR WORKING CONDITIONS	(PROCEED TO COLUMN III)	NOT YET FINALIZED	TABLE 2

* No further position definition is required for these positions; proceed directly to Table 6 and make appropriate entries.

TABLE 2

3-16

POINT SCORE IDENTIFICATION OF MILITARY AND CIVILIAN POSITIONS

RULE	I. IF THE POSITION FITS THE DEFINITION OF:	II. • SELECT THE BLOCKS THAT APPLY TO THE POSITION; • STATE PERCENT OF WORK TIME COVERED BY EACH BLOCK YOU SELECTED; • AND COMPUTE THE POINT SCORE FOR EACH BLOCK YOU SELECTED.	III. NOW TOTAL • EACH RULE • COLUMN III	IV. AND POSITION IDENTITY WILL BE ESTABLISHED AS:	V. SUBJECT TO FURTHER DEFINITION UNDER:
TOTAL FOR ALL BLOCKS UNDER RULES (17) TO (21) MAY NOT EXCEED 100%					
(17)	SECURITY	CONTROL TRAFFIC 12X % CONTROL/SECURITY 40X % PREVENT CRIME 171X % PERFORM PERMITTED PATROL/FIRE WATCH 200X % SUPERVISE 240X % SECURE NUCLEAR WEAPONS 300X %			
(18)	INTELLIGENCE	120X % 171X % 200X % 240X % 300X % 400X %			
(19)	CURRENT MILITARY BACKGROUND/TRAINING REQUIRED	120X % 133X % 150X % 171X % 240X % 300X %			
(20)	MORALE, WELFARE AND RECREATION (MWR) ACTIVITIES	6X % 30X % 60X %			
(21)	COMMERCIAL/ INDUSTRIAL ACTIVITIES	60X % 90X % 90X %			
FOR RULE (22) ENTRIES IN ALL BLOCKS MAY NOT EXCEED 100%					
(22)	AUTHORITY AND DISCIPLINE	24X % 60X % 120X %			
FOR RULE (23) ENTRIES IN ALL BLOCKS MAY NOT EXCEED 100%					
(23)	TRADITION AND/OR CUSTOM	24X % 60X % 120X %			
FOR RULE (24) ENTRIES IN EACH BLOCK MAY NOT EXCEED 100%					
(24)	UNUSUAL HOURS OR WORKING CONDITIONS	60X % 120X % 160X % 240X %			
(25)			TOTAL IF BELOW 120	CIVILIAN	TABLE 6
(26)			TOTAL IF 120 OR ABOVE	MILITARY	TABLE 3A

TABLE 3A

IDENTIFY OFFICER AND ENLISTED POSITIONS

I. IF THE POSITION: A B C D E	II. THEN: RULE (b), (c), (d) and (e) WILL NOT BE APPLIED RULE (c), (d) and (e) WILL NOT BE APPLIED RULE (d) and (e) WILL NOT BE APPLIED RULE (e) WILL NOT BE APPLIED (PROCEED TO COLUMN III)	III. AND POSITION IDENTITY WILL BE ESTABLISHED AS: COMMISSIONED OFFICER WARRANT OFFICER OFFICER ENLISTED NOT YET FINALIZED	IV. SUBJECT TO: NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6 NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6 FURTHER DEFINITION UNDER TABLE 4 NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6 FURTHER DEFINITION UNDER TABLE 3B
(a) FITS THE DEFINITION OF: • COMMISSIONED OFFICER BY LAW OR TREATY		COMMISSIONED OFFICER	NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6
(b) FITS THE DEFINITION OF: • WARRANT OFFICER BY LAW OR TREATY		WARRANT OFFICER	NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6
(c) FITS THE DEFINITION OF: • COMMAND, PLATOON OR ABOVE; OR • DISCIPLINARY POWERS (UCMF); OR • OFFICER BY LAW OR TREATY		OFFICER	FURTHER DEFINITION UNDER TABLE 4
(d) FITS THE DEFINITION OF: • ENLISTED BY LAW OR TREATY		ENLISTED	NO FURTHER DEFINITION. ENTER IDENTITY ON TABLE 6
(e) DOES NOT FALL UNDER RULES (a), (b), (c), or (d)		NOT YET FINALIZED	FURTHER DEFINITION UNDER TABLE 3B

TABLE 3B

POINT SCORE IDENTIFICATION OF OFFICER AND ENLISTED POSITIONS

I. IF THE POSITION FITS THE DEFINITION OF:	II. THEN SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:					III. NOW ENTER SCORE FOR RULE TOTAL COLUMN III	IV. AND POSITION ID- ENTITY WILL BE ESTABLISHED AS:	V. SUBJECT TO:
	30 Broad Knowledge of Military Operations and Subjects	60 Familiarity of Basic Operations Which Require Some Previous Training	90 Knowledge of an Extensive Body of Regulations on a Wide Variety of Functions	300 Knowledge of a Wide Range of Concepts, Principles and Practices in a Professional Occupation	450 Mastery of a Professional Field to Command and Develop New Techniques and Theories			
(d) KNOWLEDGE								
(g) SUPERVISORY CONTROL	20 Works as Instructed and Consults Supervisor as Needed	20 Plans and Carries out Work in Accordance with Accepted Practice	60 Plans and Carries out Work in Accordance with Accepted Practice	90 Plans and Carries out Work in Accordance with Accepted Practice	300 Plans and Carries out Work in Accordance with Accepted Practice	450 Plans and Carries out Work in Accordance with Accepted Practice		
(h) JUDGMENT AND GUIDELINES	15 Follow Detailed Guidelines; Seek Guidance for all Deviations	20 Apply Specific Guidelines Effectively	60 From Established Procedures/ Guidelines; Select and Apply Best Approach	90 Interpret and Apply Detailed Guidelines; Analyze Results; Recommend Changes	300 Adapt General, but Limited, Guidelines and Develop Approved Alternatives	450 Interpret and Apply Broadest Guidelines and Legislation		
(i) DECISION-MAKING AND COMPLEXITY	15 Follow Specific Instructions on Most Quickly Numbered	20 Select Source of Information and Type of Action, or Authorize a Direction, Based Upon Written Guidance	60 Decide What Needs to be Done Within Established Alternatives	90 Direct Varied Efforts, Interpret Data, Plan Work, Make Refinements	300 Originate Techniques, Establish Criteria, Decide How Personnel Will be Used	450 Decide Concepts, Theories, Programs, Content and Character of Operations		
(j)						TOTAL IF BELOW 300	ENLISTED	NO FURTHER DEFINITION ENTER ON TABLE 6
(k)						TOTAL IF 300 to 450	OFFICER	FURTHER DEFINITION UNDER TABLE 4
(l)						TOTAL IF ABOVE 450	COMMISSIONED OFFICER	NO FURTHER DEFINITION ENTER ON TABLE 6

TABLE 4

POINT SCORE IDENTIFICATION OF OFFICER AND WARRANT OFFICER POSITIONS

R U L E	I. REVIEW THE POSITION AND THE DEFINITION OF:	II. THEN FOR EACH RULE SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:					III. NOW ENTER SCORES AND ADD COLUMN-	IV. AND POSITION IDENTITY WILL BE ESTABLISHED AS:
		Supervise Technical Service Activity	Employ Special Technical Skills; Operate Complex Equipment	In-depth Expertise in Several Enlisted Skills	Responsibility for Military Operations and Force Management	Staff or Line Planning/ Programming/ Management/ Organization Responsibilities		
(m)	KNOW-HOW	30	70	100	160	180		
(n)	PROBLEM SOLVING	40	70	90	140	180		
(o)	ACCOUNTABILITY		40	90	120	180		
(p)		Receipt and Account for Property	Responsible for Administrative and Support Services	Develop Functional Policies and Advise on Implementation	Control Substantial Resources		TOTAL IF 360 OR ABOVE	COMMISSIONED OFFI- CER - ENTER ON TABLE 6
(q)							TOTAL IF BELOW 360	WARRANT OFFICER - ENTER ON TABLE 6

TABLE 5

IDENTIFY MILITARY FORCE STRUCTURE POSITION REQUIREMENTS

R U L E	I. IF THE POSITION FITS THE DEFINITION OF:	THEN - POSITION IDENTITY WILL BE ESTABLISHED:	III. AND ESTABLISHED IDENTITY WILL BE ENTERED IN:
(r)	ROTATION BASE REQUIREMENTS	AS PRESCRIBED IN THE GOVERNING HQDA DIRECTIVE, AS AMENDED	TABLE 6
(s)	CAREER PROGRESSION REQUIREMENTS		
(c)	NO QUALIFIED CIVILIANS AVAILABLE		

TABLE 6

RECORD POSITION IDENTITY

I. ITEM	II. ENTER DESIGNATORS	III. TABLE NUMBER	IV. ENTER:		V. ENTER:			VI. VALIDATION	
			RULE DESIGNA- TOR(S)	SCORE	IDENTITY	KEY TABLE	KEY RULE	NAME OF ANALYST/GRADE	DATE
MTOE		1	() *		COMMI- SIONED OFFICER	1 or 2	()		
TDA		2	(25)		WARRANT OFFICER	1 or 2	()		
CCNUM		3A	()		ENLISTED	1 or 2	()		
EDATE		3B	(j)		CIVILIAN	1 or 2	()		
PARA- GRAPH		4	(p)						
LINE		5	()						
POSITION TITLE									

* NOTE FOR COLUMN IV, TABLE 1: Enter only one of rules (1) through (8) from Table 1. If none of those rules apply, make no entry in Column IV for Table 1 -- leave blank. Do not enter any one of rules (9) through (16) in Column IV for Table 1.

DEMONSTRATION TESTING

The Study Advisory Group (SAG) Meeting Minutes, "Quantitative Procedures for Position Identity, Definition," 27 July 1979, specified that "GRC will give the hypotheses and the SAG will test." (See Appendix C for further detail.)

The GRC monthly performance and cost report #10, 7 August 1979, provided the SAG a descriptive test procedure to demonstrate the applicability of the devised quantitative procedure to a representative sample of positions currently in the Army force structure.

The demonstration test plan and procedures, a discussion of the conduct of the test, GRC participation, conclusions drawn from test data and further recommendations for follow-on work are detailed in following pages.

DEMONSTRATION TEST PLAN AND PROCEDURES

Test Objective

The objective of this test was to demonstrate that the quantitative position identification procedure discriminates consistently between military and civilian positions; and in the cases where military positions are defined, further identify on a consistent basis those positions for enlisted, warrant officer, or commissioned officer incumbency.

Assumptions

It is assumed that the numerical values of subfactors which appear in the Position Identification Handbook adequately represent the relative power of these subfactors to differentiate between military and civilian positions; and between enlisted, warrant officer and commissioned officer positions.

Test Structure

1. A representative sample of positions descriptions must be selected to test the Position Identification Handbook procedure. These positions should be selected so that:

- All categories of positions are evaluated. The sample shall include positions that are uniquely commissioned officer, warrant officer, enlisted or civilian and positions not uniquely defined.
- All decision logic and quantitative evaluation tables are applied.
- All rules in the tables are exercised.

To satisfy the above criteria, 30 position descriptions are required. They must be selected as follows:

	<u>COMMISSIONED OFFICER</u>	<u>WARRANT OFFICER</u>	<u>ENLISTED</u>	<u>CIVILIAN</u>	<u>TOTAL</u>
UNIQUELY DEFINED	2	2	2	2	8
NOT UNIQUELY DEFINED	<u>5</u>	<u>5</u>	<u>4</u>	<u>8</u>	<u>22</u>
	7	7	6	10	30

Figure 4.1, Distribution of Test Positions, identifies the number of positions that should be evaluated at each sequential event in the position identification process. The boxes indicate outcomes of an operational event in the sequence, whereas the diamonds indicate the application of decision logic or quantitative analysis in the process.

The distribution of the selected positions set forth above establishes the benchmark or standard against which the position identification process will be evaluated. The process and the anticipated outcome are depicted in Figure 1 and discussed below:

All 30 positions are evaluated against Table 1, Identify Military and Civilian Positions, in the Position Identification Handbook.

The expected outcome should correspond to the following distribution:

- 12 positions should be identified military
- 2 positions should be identified civilian
- 16 positions should require further evaluation

The 12 military positions will test the 6 decision logic rules that identify military positions, and 2 will test the 2 rules that identify civilian positions. The positions identified as civilian require no further evaluation.

The 16 positions requiring further evaluation will test the quantitative processes of Table 2, Point Score Identification of Military and Civilian positions, in the Position Identification Handbook.

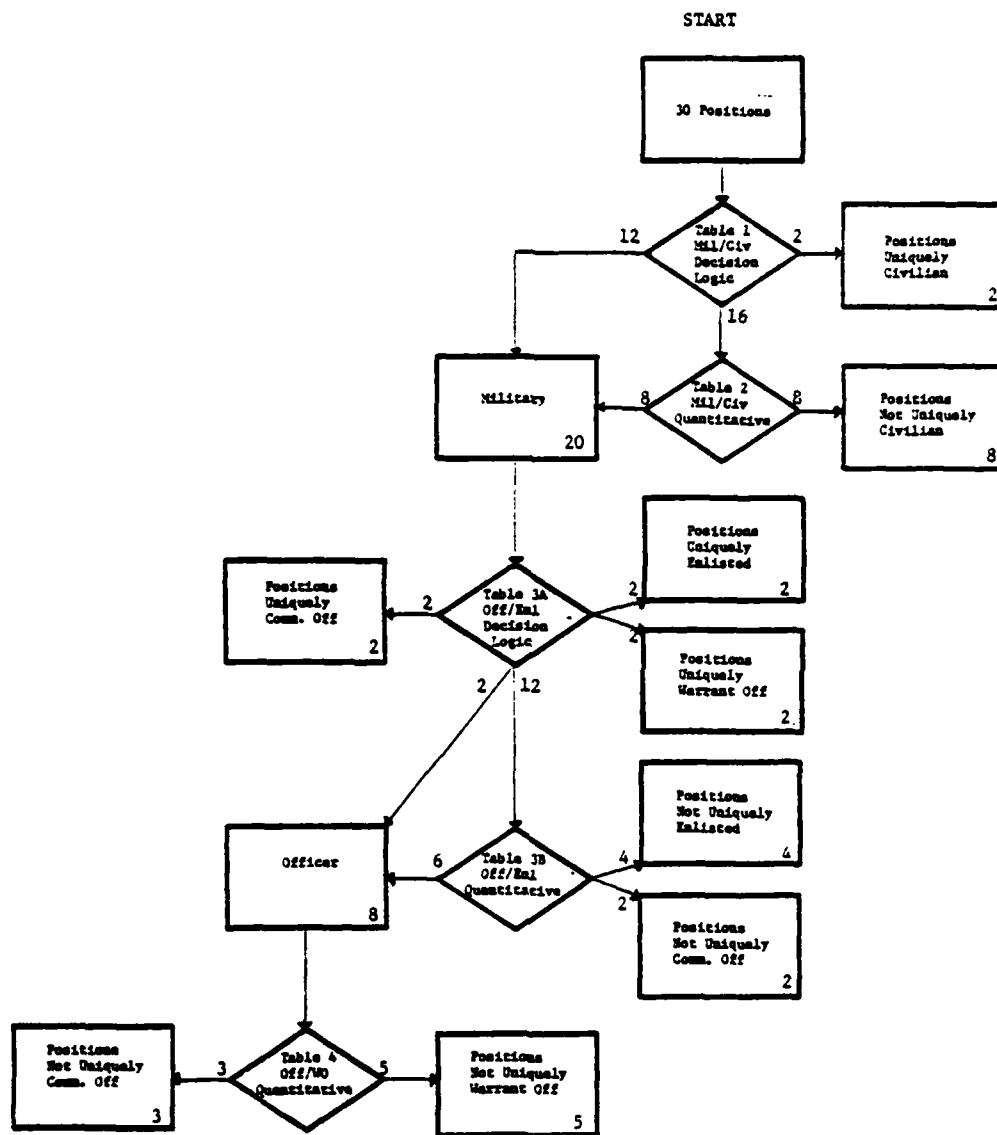


Figure 4.1. Distribution of Test Positions

2. The expected outcome of the 16 positions to be evaluated in Table 2, referenced above, should correspond to the following distribution

- 8 positions should be identified military
- 8 positions should be identified civilian

This distribution is established to ensure testing of the 8 quantitative rules 2 times each to provide data to determine the capability of the process to discriminate consistently between military and civilian positions.

3. The third event in the process is to evaluate the 20 military positions (12 from Table 1 and 8 from Table 2) against Table 3A, Identify Officer and Enlisted Positions, in the Position Identification Handbook. The expected outcome should correspond to the following distribution.

- 2 positions should be identified officer
- 2 positions should be identified commissioned officer
- 2 positions should be identified warrant officer
- 2 positions should be identified enlisted
- 12 positions should require further evaluation

This distribution ensures exercise of all decision logic rules and requires further evaluation of 14 positions in quantitative Table 3B Point Score Identification of Officer and Enlisted Positions, and Table 4, Point Score Identification of Commissioned and Warrant Officer Positions, in the Position Identification Handbook.

4. Of the 14 positions referred to above, 12 are evaluated in Table 3B. The expected outcome should correspond to the following distribution:

- 6 positions should be identified officer
- 2 positions should be identified commissioned officer
- 4 positions should be identified enlisted

TAB	IDEN	R	U	L	E	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
-----	------	---	---	---	---	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------

The 6 officer positions will be further evaluated in Table 4. The 4 enlisted positions should be identified as enlisted based on scores between 15 and 299.

5. The 8 officer positions (2 from Table 3A and 6 from Table 3B) will be evaluated in Table 4. The expected outcome should correspond to the following distribution:

- 3 positions should be identified commissioned officer
- 5 positions should be identified warrant officer

This event concludes the sequence as depicted in Figure 1.

6. When in operation in the field, the position identification process will require the analyst to evaluate, against Table 5, positions earmarked for civilian incumbency under Tables 1 and 2. There is no need to test Table 5 processes because:

- For "Rotation Base Requirements," the analyst will comply with the explicit instructions contained in DA Circular 611-62, Implementation of Enlisted Space Imbalance Program, and implementing directives. Compliance with specific HQDA instructions on officer rotation do not change, supersede, or otherwise alter the content of HQDA directives on rotation needs.
- For "Career Progression Requirements," the analyst will proceed in the same fashion as outlined above for rotation requirements. It is noted, however, that HQDA communications to the field dealing with career progression requirements may require refinement into a single, more explicit directive for use by analysts employing the GRC-developed positions identification method. In any case, Table 5 instructions do not change, supersede, or otherwise alter the content of HQDA directives on career progression needs.

- For "No Qualified Civilians Available," the analyst will, again, proceed in a fashion similar to the above in compliance with HQDA instructions. In this case, however, explicit instructions from HQDA in the form of a new directive will be required to implement the field procedure prescribed in the "No Qualified Civilians Available" factor on page 2-19 of the GRC-developed Draft Positions Identification Handbook. Table 5 will, as stated above, require compliance with the explicit content of the new directive.

6. The benchmark or standard discussed earlier was structured to ensure:

- Coverage of all categories of positions
- Demonstration of the capability of the position identification procedure to discriminate consistently between categories
- Testing each decision rule

DESIRED NUMBER OF TESTERS

Ten testers should provide a reasonable test of the reliability of the Position Identification Handbook. Ten testers scoring 30 positions apiece will provide 300 position identifications including:

- The exercise of Table 1 - 300 times
- The exercise of Table 2 - 180 times
- The exercise of Table 3A - 200 times
- The exercise of Table 3B - 120 times
- The exercise of Table 4 - 80 times

Additionally all rules will be applied a minimum of 20 times and positions identified by categories as follows:

<u>COMMISSIONED OFFICERS</u>	<u>WARRANT OFFICERS</u>	<u>ENLISTED</u>	<u>CIVILIAN</u>
70	70	60	100

The data provided by the number of events as described above will permit the development of three estimates of the reliability as indicated below:

1. A measure of reliability of the overall process described in the Position Identification Handbook will be the number of positions properly identified in a category (commissioned officer, warrant officer, enlisted, or civilian) when measured against the bench mark or standard established by the selection of the 30 specified positions. If the percentage error is greater than some reasonable rate, 4% or 5%, then additional analysis will be required to identify error causes and suggested remedies by tables or rules.

2. A measure of reliability of tables will be established by analysis of results obtained in relation to expected outcomes as specified in Figure 4.6. Significant deviation, 10% or more, in expected outcome will require analysis and correction.

3. A measure of reliability of rules to discriminate both independently and within table will be established by analysis of score values recorded in the application of each rule a minimum of 20 times. Deviations in score values exceeding 10% will be considered indications of user bias or scoring difficulties and require further analysis.

DEMONSTRATION TEST OF THE GRC DEVELOPED POSITION IDENTIFICATION HANDBOOK

Conduct of the Test

A demonstration test was conducted by Department of the Army, Director of Manpower, Plans and Budget at Headquarters, United States Army Materiel Development and Readiness Command, on 14 September 1979.

The descriptive test procedure was as follows:

- A sample of 30 positions currently in the Army force structure was selected by members of the DA staff. Position descriptions were made available to testers.
- The sample ensured all categories of positions were evaluated, all decision logic tables and all rules in the tables were exercised.
- Ten testers were selected by major commands designated by the SAG. A profile of test participants is shown below:

<u>COMMAND</u>	<u>OFF</u>	<u>WO</u>	<u>ENL</u>	<u>CIV</u>	<u>TOTAL</u>
DARCOM	1			2	3
USACIDC		1		1	2
DA(CIVPERS)				1	1
DAEN				1	1
OCE			1		1
DA(MILPERS)				1	1
TRADOC	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>10</u>

BY SPECIALTY/BACKGROUND

MANPOWER MANAGEMENT	5
CIV PERS MANAGEMENT	1
MIL PERS MANAGEMENT	4

Test Results

The demonstration test generally followed the descriptive test procedure. Analysis of the test results demonstrated the applicability of the position identification procedure to positions in the Army force structure. Additional pertinent information is as follows:

- With minimum advance notice and a short instructional briefing, the testers were able to understand and manually apply the methodology, demonstrating that the procedure is sufficiently simplistic to be used by manpower managers at all levels with minimum training.
- All quantitative and decision logic tables were exercised during the test covering all categories of positions: commissioned officer, warrant officer, enlisted, and civilian
- Consistency was demonstrated by the fact that there was 100% agreement on use of the tables, rules, and scoring on 14 of 30 positions.
- The consensus was that uniquely defined officer, warrant officer, enlisted, and civilian positions retained their identity in 13 of 14 cases. The sole exception was a position for which the job description did not support the technical aspects of the job title. This difference was predicted.
- Commissioned officer, warrant officer, enlisted, and civilian positions not uniquely defined by existing criteria were identified in a different category 5 times. Three military positions were converted to civilian. Basis for military category was not evident in the 3 job descriptions. Two civilian positions were converted to military. Analysis of this difference revealed the job descriptions contained work time factors which supported quantitative identification of commissioned officer.
- One position, not uniquely defined under existing criteria as commissioned officer, was converted to a civilian position

by 5 testers and determined appropriately categorized as commissioned officer by 5 testers. Analysis of the job content reflected the proper category, based on job description alone, would be difficult to determine and was the basis for its selection as a test case.

Two matrices follow as Figures 4.2 and 4.3. Figure 4.2 identifies the rules applied by each tester and the overall consensus of position identity. Figure 4.3 is an index of agreement between testers.

The methodology used to construct the matrix in Figure 4.3 was as follows:

The number of times each tester agreed with every other tester was counted and the resulting number of agreements entered into the matrix. The total numbers of agreements for all testers was used to derive an average index of agreements.

The result of this analysis revealed that for each tester there was an average of 22.4 agreements out of a possible 30 agreements (74.7% agreement). The number of tester agreements varied from 18 agreements per tester to 29 agreements per tester. The standard deviation was 2.48 indicating that most testers agreed between 20 and 25 times out of a possible 30 times with their cohorts.

No testers appeared to differ substantially from the overall average number of agreements per tester. There were no obvious discrepancies from the overall index of agreements. The test results adequately demonstrate the reliability and consistency of this procedure.

Conclusions

- The test demonstrated the capability of the GRC-developed procedure to consistently determine position category identity and its applicability to all positions in the Army force structure.

CURRENT POSITION IDENTITY	TESTERS											CON- SENSUS
	1	2	3	4	5	6	7	8	9	10		
1. ENGR. EQUIP REPAIR TECH	1 C	13 2	1 N	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
2. WHEEL VEH. MECH.	1 E	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
3. ILLUSTRATOR	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
4. INSTRUCTOR	1 O	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
5. TNG. INSTRUCTOR	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
6. POL. JFF	1 W	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
7. TNG. INSTRUCTOR	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
8. AUTOMOTIVE MECH.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
9. POL. SUPPLY TECH.	1 W	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
10. AUTOMOTIVE WORKER	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
11. CLERK/ STENO	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
12. MAINT. MGT. TECHNICIAN	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
13. EQUAL OPP. OFF.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
14. ADMIN. OFF.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
15. GEN. SUPPLY SPEC.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
16. MANAGEMENT ANALYST	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
17. LOG PLANNING SPEC.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
18. PROGRAM ANALYSIS OFF.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
19. BUDGET ANALYST	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
20. PROGRAM ANALYSIS OFF.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
21. MANPOWER CNTRL. JFF.	1 O	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
22. INF. SYS. DIRECTOR	1 O	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
23. CHAPLAIN	1 O	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
24. MANAGEMENT ANALYST	1 O	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
25. JPRS MGT.	1 E	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
26. LOGISTICS MGT. JFF.	1 O	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
27. PROCUREMENT SPEC.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
28. CHIEF OF PUB. AFFAIRS	1 O	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
29. PERS. MGT. JFF.	1 C	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2
30. PERS. MGT. SUPV.	1 E	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2	13 2

Legend: 1 - OFFICER 2 - ENLISTED 3 - TABLE AND RULE
N - WARRANT OFFICER C - CIVILIAN NO. IN TOP OF BLOCK - TABLE AND RULE
NO. IN BOTTOM OF BLOCK - KEY RULE

Figure 4.2. Position Identification Rule and Identity Consensus
4-14

TESTERS	TESTERS											
		1	2	3	4	5	6	7	8	9	10	AVG.
	1	X	20	21	25	21	22	23	21	23	22	22
	2	20	X	24	19	22	22	22	23	22	24	22
	3	21	24	X	21	28	22	21	21	24	22	22.7
	4	25	19	25	X	22	19	25	20	24	19	21.6
	5	21	22	28	22	X	22	23	21	26	22	23
	6	22	22	22	19	22	X	22	27	19	28	22.6
	7	23	22	21	25	23	22	X	23	23	22	22.7
	8	21	23	21	20	21	27	23	X	18	29	22.6
	9	23	22	24	24	26	19	23	18	X	19	22
	10	22	24	22	19	22	28	22	29	19	X	23

Figure 4.3. Index of Agreements

- Given required information on a position and its work content, the quantitative procedure does provide a basis for establishing identity of position in future Army force structure adjustments.
- The test demonstrated a widespread use of Rule 13 (Commercial/Industrial Activities) to categorize positions. The use of that rule focused attention on the commercial/industrial aspects of each position so identified. The result was to present such positions as civilian in all cases. Clearly, position identification in this area of activity remains a problem as illustrated by the 2-year delay in publication of a revised version of OMB Circular A-76 which resulted from extensive Congressional deliberations in search of clear definitions of such activities. The test reveals that additional study, with a view toward refinement of the definitions within the proposed handbook for Rule 13 may be required.
- The draft pamphlet may, as written, require the user to have a sophisticated level of understanding. That requirement could restrict its use. Definitions should be analyzed for possible deficiencies. Table 1 and Table 6 may require refinement or amendment. Instructions must be examined to determine where improvement can be made.
- This demonstration meets or exceeds established requirements in the contract; however, a need for additional analysis by the SAG followed by an extended test before implementation is indicated.

Recommendations

- Further review and refinement of the Position Identification Handbook as indicated in conclusions set forth above.
- Conduct an expanded and detailed test process to permit final validation of the position identification methodology prior to Army-wide implementation. The objective of the expanded test procedure would be to ensure that the numerical values assigned to the subfactors used in quantitative evaluation

SUMMARY OF WORK ACCOMPLISHED BY TASK

APPENDIX A

SUMMARY OF WORK ACCOMPLISHED

This contract study includes five major tasks and a final report. The following comments describe work accomplished with references to the appropriate monthly performance and cost report(s) and section(s) of the final report.

Elaboration of the Problem

As originally contemplated in the GRC proposal, this task continued during the first 5 months of the effort. The detailed description of the position identification problem was completed and submitted to the study advisory group for this study as an enclosure to the monthly performance and cost report #2, 7 December 1978. Report #5, 7 March 1 1979, reflected this task 98% complete. The problem description was the culmination of the actions reported under this task, which described the direction of the follow-on analysis in terms of assumptions relating to key manpower areas, "DA guidance needed" items, overall fact finding discussions, and GRC investigator fact-finding interviews. This task was determined to be complete in report #11 on 7 September 1979. The detailed discussion of the elaboration of the problem is contained in Section 2 of the final report.

Review and Analysis

This task continued during the first 7 months of the project on a diminishing basis each month. The bulk of the work under this task and its component subtasks was accomplished during November 1978 as reported in monthly report #2, and was estimated 96% complete by 31 January 1979 (see monthly report #4). This portion of the study surfaced a plethora of directives concerning position identification and this information is included as a part of the description of the problem in the preceding task and Section 1 of the final report. A final review of all directives cited in the study was accomplished to determine currency of the reliance of the GRC study on published policy.

Synthesis of Relevant Information

This task contained two significant subtasks, a description of current position identification methods and the rank ordering of decision criteria which were in large part a product of the review and analysis undertaken in the preceding task. In-depth work on this task commenced in November 1978 (report #2, 7 December 1978), but the bulk of work was accomplished during December as reported in report #3, 7 January 1979. The synthesis was completed in rough draft in December 1978, and was extensively revised in January to incorporate refinements which were the result of additional review and analysis of Army documentation. A draft report of the synthesis was delivered to the study advisory group (SAG) on 13 February 1979. This synthesis is discussed in detail in Section 2 of the final report.

Development of Recommendations

Work on this task commenced in January and continued through April 1979, as reported in reports #4 through #7, when it was estimated to be 95% complete, with final work accomplished during August and September (reports #11 and #12). The two component subtasks of this effort, identify promising structural modifications and identify promising procedural modifications, continued as subject of continuing joint research and assessment by the GRC study team and SAG throughout the project. Specific recommendations for selected proposed changes were incorporated into a 15-page draft document which is Section 3 of this final report. The draft recommendations were presented to the SAG in a briefing at the Pentagon on 16 March 1979. That briefing was reproduced and attached to report #6, 6 April 1979.

Development of Quantitative Methodology

Research efforts to investigate all possible avenues began in March and development of an objective and quantitative procedure continued throughout the project. March efforts were concentrated on development and refinement of factors and their quantification in terms of precedence and weights (report #6, 6 April 1979). Development and preparation of decision logic tables and quantitative methods/concepts were the primary focus of effort for the month of April 1979 as described in report #7,

7 May 1979. In May, GRC presented the SAG the results of the GRC effort to structure the quantitative factors in order of relative importance. The definitions of the factors were expanded to identify the subfactors which are an important element in the quantification process. These factors were provided to the SAG on 16 May and appended to report #8, 7 June 1979. The quantitative methodology for the sequential process emerged during June when previously developed factors and subfactors were assigned relative weightings and point values. The process was reported to the SAG by letter on 20 June, and recorded in report #9, 6 July 1979. The draft position identification handbook was completed during July and forwarded to the SAG as enclosure 1 to report #10, 7 August 1979. It presents the decision logic and quantitative procedure for position identity definition and is included in Section 4 of this report. GRC attended a meeting of the SAG on 30 August where plans were made for a demonstration test of the position identity procedure (see report #11, 7 September 1979). The demonstration test of the methodology was conducted 14 September 1979. The report of the successful demonstration test is in Section 4 of this report and was appended to report #12, 5 October 1979.

APPENDIX B
INDIVIDUAL POSITIONS IDENTIFIED BY
SPECIFIC DIRECTIVES

APPENDIX B

INDIVIDUAL POSITIONS IDENTIFIED BY SPECIFIC DIRECTIVES

Description	M I L I T A R Y				
	↓	Officer	Warrant Officer	Enlisted	Civilian
Aide de Camp; Aide-Officer	Para 5-3f(3), AR 570-4	Para 1-2a&b, AR-614-16, Para 3-2b, AR570-2		Para 2-2, AR614-16 Para 3-5a, AR570-2	
Aide, Enlisted	Para 5-3f(3), AR570-4			Para 1-6, AR95-37 Page 2-39, DA PAM570-567	Para 1-6, AR95-37 Page 2-39, DA PAM 570-567
Air Traffic Controller					Para 1-8c, DA PAM 570-560 Para 2b, AR140-315
Army Reserve Technicians (Full time career civilian employee of the Army National Guard or Army Reserve-AR 310-25)					
Aviator	Para 5-3f (15)& (16), AR 570-4	Para 5d(2), AR 570-1, Para 4, AR600-106	Para 3-3a, AR570-2 Para 4, AR600-106 Para 2-3, AR611-85		Para 1-13b(3), AR95-1
Bandleader	Para 5-3f(3), AR 570-4	Para 1-3b(1), AR 220-90	Para 1-3c, AR220-90	Para 1-3d, AR220-90	
Bandsman	Para 5-3f(3), AR 570-4			Para 1-3f, AR220-90	
Bugler				Para 3-4a, AR570-2	

M I L I T A R Y



Description	Officer	Warrant Officer	Enlisted	Civilian
Career Counselor	Para 5-3f(3)AR 570-4		Para 3-4 l, AR570-2 Para 1-12, AR601 280, Page 2-92, DA PAM 570-551	
Chaplain	Para 5-3f(3)AR 570-4	Para 3-2h, AR570-2 Para 2-1a, AR165- 20	Para 3-4c, AR570-2 Para 2-6a, AR 165- 20	
Chaplain Assistant	Para 5-3f(3)AR 570-4		Para 3-4b, AR570-2	
Chaplain Admin- istrator				
Civilian Personnel Staff				DA PAM 670-551 Pages 2-142 thru 2-147
Commander	Para 5-3f(1) AR 570-4	Para 3-1, AR600-20		
Deputy Commander	Para 5-3f(1) AR 570-4	Page 2-2, DA PAM 570-555		
Company Commander	Para 5-3f(1) AR 570-4	Page 2-74, DA PAM 570-555		
Platoon Commander	Para 5-3f(1) AR 570-4	Para B-1b, AR310-49	Para 4-2d, AR600-20	

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Unit, Station, Detachment Commander	Para 5-3f(1)AR 570-4	Para 4-4b(2), DA PAM 600-11		
Commissary Store Positions	Para 5-6e, AR570-4 Para 4-2a, AR30-19			Para 5-6e, AR570-4 Para 4-2a, AR30-19
Communications-Electronics Staff Officer	Para 3-2m, AR570-2			Page 2-2, DA PAM 570-567
Communications Chief			Para 3-6a, AR570-2	
Tech Evaluation Det Cdr	Page 2-6, DA PAM 570-567			
Auto Sevocom Test TM Chief		Page 2-7, DA PAM 570-567		Page 2-7, DA PAM 570-567
Broad Band Test Team Chief				Page 2-13, DA PAM 570-567
Telecomm Center Opns Supv				Page 2-27, DA PAM 570-567
Telephone Switch-board Oper				
Communications Officer	Para 13-1d, AR 310-49			

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Voice Radio Operator Pos			Para 3-7e, AR570-2	
Company Clerk			Page 2-77, DA PAM 570-555 Page 2-386, DA PAM 570-555 Para 3-4d, AR570-2	
Company Executive Officer	Para 3-2a, AR570-2 Page 2-4, DA PAM 570-551			
Company Level Supply Sergeant			Para 3-10c(1) AR 570-2, Page 2-74 DA PAM 570-555 Page 2-77, DA PAM 570-555	
Comptroller	Page 2-42, DA PAM 570-551 Page 2-12, DA PAM 570-566			Page 2-8, DA PAM 570-563 Page 2-12, DA PAM 570-566
Director of R&D Center	Para 5b, AR70-55			Para 5b, AR70-55
Deputy	Para 5b, AR70-55			Para 5b, AR70-55
Dispatcher			Para 3-7a, AR570-2	

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Drill Sergeant	Para 5-3f(3) AR 570-4		Para 11-63b, AR 614-200	
Equal Opportunity Officer	Para 3-20, AR 570-2			Page 2-70.5, DA PAM 570-551
Equal Opportunity NCO			Para 3-4n, AR570-2	Page 2-70.5, DA PAM 570-551
Equipment Survey Control Officer (AR570-7 specifies officer)	Para 1-5, AR570-7 Para 1-6, AR570-7	Para 1-5, AR570-7 Para 1-6, AR570-7		
Equipment Maintenance Clerk			Para 3-4i, AR570-2	
Facility Engineer	Para 5-3a, AR420-10 Page 2-324 DA PAM 570-551			Para 5-3a, AR420-10
Deputy Facility Engineer				Page 2-324, DA PAM 570-551
Engr Staff Officer	Para 5-5, AR420-10 Para 5-5, AR570-4			Page 2-324, DA PAM 570-551
Facility Engr NCO			Page 2-324, DA PAM 570-551	Page 2-324, DA PAM 570-551

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Industrial Engineer	Page 2-324, DA PAM 570-551			Page 2-324, DA PAM 570-551
Finance & Accounting Officer	Para 3-21, AR570-2 Page 2-47, DA PAM 570-551			
Deputy Finance & Accounting Off	Para 1-3d, AR37-103	Para 2-31, AR37-103	Para 2-31, AR37-103	Para 2-31, AR37-103
Accounting Officer	Para 3-21, AR570-2			Page 2-61, DA PAM 570-551
Budget Officer				Page 2-66.1, DA PAM 570-551
Accountable Disbursing Off	Para 3-21, AR570-2 Para 1-3b, AR37-103			Page 2-65, DA PAM 570-551
Disbursing Agent			Para 1-3c, AR37-103	Para 1-3c, AR37-103
Finance Officer	Para 1-3d, AR37-103			
Firefighters	Para 5-2, AR420-90			Para 5-2, AR420-90
Fire Chief				Page 2-361 DA PAM-551

M I L I T A R Y

Description	↓	Officer	Warrant Officer	Enlisted	Civilian
First Sergeant	Para 5-3f(3) AR570-4			Para 4-2c, AR600-20 Para 3-6a(1), AR570-2	
Food Service Technician	Para 5-11, AR570-4		Para B-3d, AR 310-49 Para 3-3c, AR570-2		Para 5-11, AR570-4 Page 2-40.11, DA PAM 570-551
Food Service Supervisor	Para 5-11, AR570-4			Para 3-9(a) AR570-2	Para 5-11, AR570-4 Page 2-229, DA PAM 570-551
Food Service Sergeant	Para 5-11, AR570-4			Para 3-9(b) AR570-2	Para 5-11, AR570-4 Page 2-40.11, DA PAM 570-551
Cook	Para 5-11, AR570-4			Para 3-9(d) AR570-2	Para 5-11, AR570-4 Page 2-40.11, DA PAM 570-551
Gate Guards	Para 5-3f(19) AR570-4 Para 5-4c(2), AR570-4				Page 2-45, DA PAM 570-566
Honor Guard	Para 5-3f(3) AR570-4	Para 2a(2)(a) AR614-3		Para 9-2b(1) AR614-200	
Information Officer		Para 3-2j, AR570-2 Page 2-8 DA PAM 570-551			Page 2-11 DA PAM 570-551

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Information Specialist (MOS 71Q)			Para 3-4f, AR570-2	Page 2-11, DA PAM 570-551
Inspector General	Para 1-4b, AR20-1 Para 3-2k, AR570-2 Para 3-4d, AR614-100		Para 1-4c, AR20-1 Para 3-5m, AR570-2	
Assistant to Inspector Gen			Para 1-4c, AR20-1 Para 3-5m, AR570-2	
Inspection NCO				
Inspector, Depot	Page 2-6, DA PAM 570-566			Page 2-6 DA PAM 570-566
Missile Maintenance Inspector			Para 3-14, AR570-2	Page 2-284, DA PAM 570-551
Intelligence Sergeant			Para 3-6a(1), AR 570-2	
Judge Advocate	Para 5-3f(7) AR570-4			
Staff Judge Advocate	Para 8a, DA PAM 27-5			

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Military Justice Officer	Para 8a, DA PAM 27-5			Page 2-17, DAPAM 570-551
Military Affairs Officer	Para 8a, DA PAM 27-5			Para 11a, DAPAM 27-5
Claims Officer	Para 8a, DA PAM 27-5			
Legal Assistance Officer	Para 8a DA PAM 27-5	Para 8a DAPAM 27-5, Para 3-3e, AR 570-2		Page 2-15, DAPAM 570-551
Legal Admin Technician		Para 8a DA PAM 27-5 Para 3-3e, AR 570-2		Page 2-15, DAPAM 570-551
Chief Legal Clerk			Para 8a DA PAM 27-5	Page 2-15, DAPAM 570-551
Legal Clerk			Para 3-4g, AR 570-2	Page 2-15, DAPAM 570-551
Liaison Officer	Para B-1(d), AR 310-49			
Logistics Readiness Officer	Para 6h(5), AR 11-14 Para 3-2f, AR 570-2		Para 6h(5), AR 11-14	

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Logistics Readiness NCO	Page 2-26, DA PAM 570-551		Para 3-4k, AR570-2	Page 2-26 DA DAM 570-551
Management Information Systems Officer	Page 2-169, DA PAM 570-551			TB 18-21
ADP Technicians	Para 1-3b, AR56-9	Para 3-3g, AR570-2 Para 1-3b, AR56-9		Page 2-170, DA PAM 570-551
Manpower Control Officer	Para 2-21, AR40-1 Para 3-2g(1), AR570-2			Para 1-3b, AR56-9
Marine Operations Technician	Para 5-3f(12)(13) (14), AR570-4			Page 2-33, DA PAM 570-557
Medical Specialist	Para 5-3f(12)(13) (14), AR570-4			Page 2-45, DA PAM 570-557
Nurse	Para 5-3f(12)(13) (14), AR570-4			Page 2-19, DA PAM 570-557
Doctor	Para 5-3f(12)(13) (14), AR570-4			Page 2-11, DA PAM 570-557
Surgeon	Para 5-3f(12)(13) (14), AR570-4			

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Medical Service	Para 5-3f(12)(13)(14), AR570-4	Para 2-16, AR40-1 Para 3-2g(4), AR570-2		
Dentist	Para 5-3f(12)(13)(14), AR570-4	Para 2-6, AR40-1 Para 3-2g(5), AR570-2		Page 2-114, DA PAM 570-557
Veterinarian	Para 5-3f(12)(13)(14), AR570-4	Para 2-11, AR40-1 Para 3-2g(6), AR570-2		Page 2-120, DAPAM 570-557
Physician Assistant	Para 5-3f(12)(13)(14), AR 570-4	Para 3h, AR570-2 Para 3-1, AR40-1		Page 2-79, DA PAM 570-557
Medical Equipment Repair Tech	Para 5-3f(12)(13)(14), AR570-4	Para 3-2, AR40-1		
Enlisted Medical Positions	Para 5-3f(12)(13)(14), AR570-4		Para 3-11 & 3-12, AR570-2	DA PAM 570-557 throughout
(Food Insp. Veterinary Spec, Aidman, Aid Evacuation, Aid Station, Orthopedic, Neuro-psychiatric, Physical therapy, Occupational Therapy, medical				

M I L I T A R Y

Description		Officer	Warrant Officer	Enlisted	Civilian
Laboratory, Preventive Medicine, X-Ray Spec, Eye Spec, Ophthalmology Spec, Optical Lab).		Para 1-2, AR614-103 Page 2-150 DA PAM 570-551	Para 1-2, AR614-103		Page 2-150 DA PAM 570-551
Military Intelligence Officer		Page 2-83, DA PAM 570-551			
Military Personnel Officer	Para 5-3f(17), AR570-4	Page 2-84, DA PAM 570-551	Page 2-87, DA PAM 570-551 Para B-3d, AR310-49 Para 3-3b, AR570-2		Page 2-63, DA PAM 570-555
Unit Personnel Officer	Para 5-3f(17) AR570-4				
Positions in Unit Personnel Sections (or activities of comparable level and functions) with duties involving classification and assignment and other	Para 5-3f(17), AR570-4			Page 2-83, 84, 87 & 89 DA PAM 570-551	

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
related mil pers mgt functions)				
Personnel Staff NCO			Para 3-5e (1), AR570-2	
Personnel Sergeant			Para 3-5e (2) AR570-2	
Other Personnel Admin/Mgt Positions			Para 3-5e (3) AR570-2	Page 2-66, DAPAM 570-553
Motor Officer	Para B-1d, AR310- 49 Para 3-3d, AR570-2			Page 2-264, DAPAM 570-551
Automotive Maint Technician		Para 3-3d AR 570-2		Page 2-34, DAPAM 570-555
Dispatcher			Para 3-7a, AR570-2	Page 2-265, DA PAM 570-551
Driver			Para 3-7b, AR570-2	Page 2-266, DA PAM 570-551
Material Handler			Para 3-7c, AR570-2	Page 2-296, DA PAM 570-551
Recovery Special- ist			Para 3-7d, AR570-2	

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Nuclear, Biological and Chemical Specialist			Para 3-6b, AR570-2	
Operations Sergeant			Para 3-6a(1)AR 570-2	
Organizational Maintenance Supv			Para 3-6c, AR570-2	Page 2-287, DA PAM 570-551
Field Artillery Weapons Mech			Para 3-8b, AR570-2	Page 2-303, DA PAM 570-551
Petroleum Laboratory Specialist			Para 3-13, AR570-2	
Postal Officer	Para 2-2c, AR65-1			Para 2-2c, AR65-1 Page 2-79, DA PAM 570-551
Army Postal Clerk			Para 4-3, AR65-1	Page 2-79, DA PAM 570-551
Custodian of Postal Effects	Para 4-4, AR65-1	Para 4-4, AR65-1	Para 4-4, AR65-1	Para 4-4, AR65-1
Unit Mail Clerk			Para 3-4h, AR570-2	
Prisoner Work Supervisor	Para 5-3f(18), AR570-4; Para 5-4c(5), AR570-4; Para 2-3b, AR190-47			Para 2-3b, AR190-47

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Provost Marshal	Page 215 & 216 AR310-25			Para 5-6a, AR570-4
Recreation Services	Para 1-25b, AR 230-1 Para 5-6b, AR 570-4			Para 5-6b, AR570-4
Major Command Welfare Fund Custodian	Para 5-6b, AR 570-4			Para 5-6b, AR570-4
Installation Central Post Fund Custodian	Para 1-9c, AR230-65			Para 1-9c, AR230-65
Non-Appropriated Fund Custodians	Para 8-3a, AR230-60			Para 1-27b, AR230-1
Club Managers	Para 1-4e, AR230-60; Page 2-118, DA PAM 570-551	Para 8-3a, AR230-60	Para 8-3a, AR230-60	Para 8-3b, AR230-60
Installation/Area Club Manager	Para 6-2b, AR210-10			Para 1-4e, AR230-60; Page 2-118, DA PAM 570-551
Morale Support Officer				Para 2-3a(1) AR 28-1

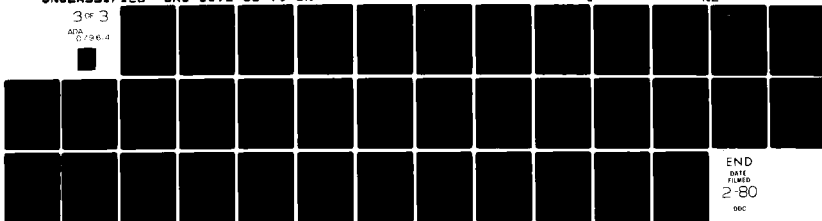
M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Recruiter	Para 5-3f(3)AR 570-4		Page 2-13, DAPAM 570-562	
Recruiter, Army Nurse Corps			Page 2-6, DA PAM 570-562	
Reenlistment Officer	Para 1-12,AR 601-280 Para 3-2n,AR 570-2 Page 2-92,DA PAM 570-551			
ROTC Professor of Military Science	Para 5-3f(9) AR 570-4			
ROTC Instructors	Para 5-3f(9) AR 570-4		Para 2-26,AR145-1	
Active Component Advisors to Army National Guard and Army Reserve	Para 5-3f(9) AR 570-4		Page 2-24, DA PAM 570-554 Para 11-27,AR614- 200	Page 2-23,DA PAM 570-554
Safeguard Techni- cians		Para 4-7,AR614-5	Para 4-7,614-5	Para 4-7,AR614-5

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QUANTITATIVE PROCEDURE FOR POSITION IDENTITY DEFINITION.(U)
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M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Safety Officer				Page 2-117, DA PAM 570-551
Safety Director	Para 2-2a, AR385-10			Para 2-2a, AR 385-10
Command Sergeant Major	Para 5-3f(3), AR570-4		Para 4-2b, AR600-20	Page 2-117, DA PAM 580-551
Sergeant Major			Para 3-6a(1), AR 570-2	
Sergeant Major of the Army			Para 4-2a, AR600-20	
Secretary of Service Schools and Colleges	Para 5-3f(3)AR570-4	Page 2-14, DA PAM 570-558		
Dir of Residence Instruction	Page 2-100, DA PAM 570-558		Page 2-100, DA PAM 570-558	
Chief Instructor				
Instruction Officer	Page 2-104, DA PAM 570-558			Page 2-104, DA PAM 570-558

M I L I T A R Y

Description	Officer	Warrant Officer	Enlisted	Civilian
Training Officer	Page 2-83, DA PAM 570-555			
Technical Advisor (Military Assistance Advisory Group or Missions)		Para B-3g, AR310-49		
Troop Issue Sub-sistence Officer	Para 2-10, AR30-18	Para 2-10, AR30-18	Para 2-10, AR30-18	Para 2-10, AR30-18
Assistant TISO	Para 2-11, AR30-18		Para 2-11, AR30-18	Para 2-11, AR30-18
Unit Supply Tech		Para 3-3f, AR570-2		Page 2-32, DA PAM 570-551
Supply Sergeant			Para 3-10b(1), AR570-2	Page 2-32, DA PAM 570-551
Supply Specialist			Para 3-10b (1)AR 570-2	Page 2-292, DA PAM 570-555
Supply Clerk			Para 3-1Cb(1), AR 570-2	Page 2-32, DA PAM 570-551
Armorer			Para 3-8a, AR570-2	Page 2-249, DA PAM 570-555
Property Book NCO			Para 3-10b(1), AR 570-2	

M I L I T A R Y

Description	↓	Officer	Warrant Officer	Enlisted	Civilian
USMA Professor and Instructor	Para 5-3f(3), AR 570-4	Para 3a, AR614-130			
USMA NCO Instructor	Para 5-3f(3), AR 570-4			Page 11-32, AR614-200	

APPENDIX C

ROLE OF THE STUDY ADVISORY GROUP IN
DEMONSTRATION TESTING

APPENDIX C

ROLE OF THE STUDY ADVISORY GROUP (SAG) IN DEMONSTRATION TESTING

Recognizing the limited time and resources available to the Study Team, and in consonance with Study Team recommendations that a test panel using Army personnel would be an optimum method of demonstrating the quantitative position identification methodology, it was initially concluded that "GRC will give the hypotheses and the SAG will test." The decisions taken on this point were documented by the SAG, and the formal summary is reproduced on following pages C4 through C6.

In the final analysis, SAG members did join in sponsoring the demonstration test conducted in September 1979 (see Section 4 of this report) but did not participate as members of the test panel. The test was conducted under the aegis of the study sponsor, with the GRC Study Team providing methodology, materials and support.

DISPOSITION FORM

For use of this form, see AR 340-7.5, the proponent agency is TAGCEN.

REFERENCE OR OFFICE SYMBOL DAPE-MBU	SUBJECT Study Advisory Group (SAG) Meeting Minutes, "Quantitative Procedures for Position Identity Definition"		
TO SEE DISTRIBUTION	FROM DAPE-MBU	DATE 27 JUL 1979	CMT 1 Mr. Edwards/cj/54778
<p>1. The SAG meeting convened at 1400 hours, 5 July 1979 in Rm 2E715B. A list of attendees is attached.</p> <p>2. Mr. Boden, Chairman, stated the purpose of the meeting was to review the analytical technique in GRC's Memorandum of 20 June 1979; and initiated the discussion by selecting sample subfactors and working thru the mathematical process to describe a position requiring military incumbency. COL O'Meara asked how GRC had arrived at the number for each subfactor. Mr. Alberts explained that the numbers were assigned by GRC analysts after study and coordination and that they are the product of educated judgments.</p> <p>3. The Chairman commented that each member of the SAG should review the subfactors and the assigned numerical values in terms of their own agencies. Mr. Daniels suggested that positions which have always been civilian should be assumed to be civilian and not subject to the methodology. Mr. Boden responded that the methodology will apply to all positions and that the SAG test may prove prior procedures valid. COL O'Meara applied the factors to his own position by considering each subfactor. Mr. Alberts calculated a score of approximately 100-110 based on COL O'Meara's discussion. COL O'Meara concurred but pointed out that the most prominent function of his job is not covered, <u>i.e.</u>, implementing doctrine.</p> <p>4. Dr. Gilbert commented that the writing style of the 20 June submission is extremely high. However, he believes the SAG will need a set of instructions. GRC personnel were aware of this need and stated that a handbook will soon be ready for delivery to the SAG. In answer to the question, "How will we test?", Mr. Boden stated, "GRC will give the hypotheses and the SAG will test." Mr. Daniels emphasized the need to select a good sampling, suggesting perhaps that MILPERCEN benchmark positions, or key positions, be obtained for the test. COL O'Meara asked, "why not an <u>ad hoc</u> committee of 8 to 10 testers going out in field units?" Mr. Boden replied that "We need teams working from the same procedure, functioning all in a like manner. We may test the procedure ourselves, send a package to the field to perform and return, or call upon the MACOMs to test."</p> <p>5. Mr. Alberts described the need for a two part test: (1) testing the internal consistency of the mathematical process, and (2) testing its reproducibility. Mr. Boden led a discussion of the assignment of percentage of time spent on subfactors and how the position's score could delineate military. Mr. Daniels discussed delineation of positions in depot installations. The applicability of the procedure in peace and war was discussed. It was agreed the procedure could be applied in both cases.</p> <p>6. Mr. Boden said copies of GRC submissions to date are available from the Recorder and announced he had received a query from DA Public Affairs concerning how the Army</p>			

DAPE-MBU

SUBJECT: Study Advisory Group (SAG) Meeting Minutes, "Quantitative Procedures for Position Identity Definition"

is identifying officer spaces that can be filled by senior enlisted personnel. Mr. Boden indicated he had responded by describing GRC's work to develop a procedure to facilitate delineation. Thus, GRC's methodology has already received some visibility, and it is anticipated the procedure will be of great utility to the Army.

7. COL O'Meara announced he will be replaced on the SAG by LTC Tom McManus, DAMO-FPD, and requested GRC brief LTC McManus on the study. Mr. Boden requested the briefing be arranged through him so all new SAG members and other interested personnel may attend. GRC agreed. Mr. Boden cited paragraph 3 of the GRC 20 June 1979 memorandum. The members of the SAG were asked if they felt the requests in paragraph 3 and the purpose of the meeting had been met. After recognizing the reservation of one member (Mr. Daniels), the Chairman declared the GRC submissions (to date) approved, and approved the start of testing as soon as GRC applies numerical values to the quantitative factors and delivers the handbook. Mr. Boden suggested SAG members think about when the field units (MACOMs) should be called in.

8. Mr. Boden adjourned the meeting at 1510 hours.

James D. Edwards

1 Incl
as

JAMES D. EDWARDS
Recorder, SAG

DISTRIBUTION:

Mr. Clyde D. Boden
Mr. A. Daniels
Dr. Paul Dunn
Dr. A. Gilbert
Mr. Dick Lester
Mr. P. Thorsteinsson
LTC Donald Mullins
COL P. B. O'Meara
LTC J. Scott
MAJ R. P. Dexter
MAJ M. Woodbury
Mr. Jack Posner
Mr. Henry Alberts
Mr. R. Elhinney
Mrs. K. Vitek

ATTENDEES, 5 July 1979

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE</u>
1. Mr. Clyde Boden	DAPE-MBU	697-1793
2. Ms. Kathy Vitek	DAPE-CPS	695-2112
3. Mr. Anthony J. Daniels	DAPE-MBR	697-6700
4. Dr. Art Gilbert	PERI	274-8275
5. LTC Donald G. Mullins	DAPE-MBA	695-6574
6. MAJ R. P. Dexter	DAPE-MPO	695-0305
7. Mr. J. D. Edwards	DAPE-MBU	695-4801
8. Mr. R. McElhiney	GRC	893-5900
9. Mr. Henry Alberta	GRC	893-5900
10. Mr. Peter Thorsteinsson	DAPE-MBS	695-9532
11. LTC John H. Squire	DAMO-FDP	697-2708
12. COL Pat O'Meara	DAMO-FDP	697-2708

APPENDIX D

DEVELOPING SUBFACTORS AND ASSIGNING VALUES

DEVELOPING SUBFACTORS AND ASSIGNING VALUES

From inception in September 1978 through October 1979 a continual dialogue between Army and GRC representatives brought to bear the best of their collective objective judgment in:

- Refining position identification factors and their definitions.
- Developing and refining subfactors within each factor which could be used to quantitatively discriminate between manpower categories and military identities.
- Assigning values to those subfactors.
- Generally refining the logic train and relative weights underlying the GRC-developed decision logic/quantitative construct.

On 20 June 1979, the GRC Study Team recorded in detail the approach and techniques used in the derivation of subfactors and development of their respective weights. That documentation is reproduced here on pages D-4 through D-16. While the dynamic nature of the quantitative methodology development process has caused, and will continue to cause, some modification of selected factors and their subfactor values since that document was published, it does provide a thorough description of the rationale and methods used in deriving the quantitative elements of the decision logic/quantitative construct.

An earlier formal presentation on 19 April 1979, to the Army Study Advisory Group (SAG) constituted for this research effort, provided a thorough description of the logic train underlying the derivation and use of subfactors and subfactor values, and the manner of their employment in the quantitative position identification process. While the dynamics mentioned above have since caused selected factor/subfactor changes from the original presentation, it is reproduced here on pages D-17 through D-32 as a key source and reference document supporting study results.

GENERAL RESEARCH



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20 June 1979

Mr. Clyde D. Boden
Contracting Officer's Representative
DAPE-MBU
Department of the Army
Washington, D. C. 20310

Dear Mr. Boden:

Subject: Review of Numerical Values Assigned to Subfactors to be Used
in the Step 1 Quantitative Procedure for Position Identity
Definition

As forecast in the 16 May 1979 GRC memorandum to the Chairman of the SAG, and confirmed in the 7 June 1979 monthly report, numerical values have been assigned to each subfactor in the statistical design of the step 1 procedure. The analytical technique employed is fully described in the enclosure to this memorandum. A matrix showing the assigned numerical value for each subfactor is also included. Please note that, after careful review of the fact that civilians are often utilized in remote locations, the subfactors within the factor, Unusual Hours or Working Conditions, have been reordered. The result of this reordering moved the subfactor Remote Location from the top of the hierarchy to the bottom position.

The test package programmed for delivery to you on/about 1 July will address the use of quantitative/numerical conversion tables which will, by means of point score range cut-off points, translate aggregate factor point scores, into a delineation category decision. Application of this procedure uniformly throughout the Army should enhance the consistency of position identity decisions within the Department.

The treatment of quantitative aspects of position identity delineation factors forms the foundation for the step 1 test procedure and the development of matrixes and conversion tables for succeeding steps. The numerical values assigned to the subfactors must be considered tentative at this time. It is anticipated that SAG input and subsequent testing will result in changes and refinements. SAG review, comment and/or concurrence with the numerical value assignments and analytical technique is essential. Therefore, the SAG, and others who may be designated by the SAG, are requested to review the enclosure and consider:

- The format, content, and completeness of the matrix
- The objective judgment which established relationships describing the importance of each factor and subfactor
- The mathematical treatment of the process which generated resulting numerical values

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Mr. Clyde Boden
20 June 1979
Page 2

SAG review and discussion will prove beneficial to the conduct of the test. Therefore, in evaluating the assignment of these values we recommend your careful examination of subfactors and their relative importance as reflected by point scores, and challenge of both the logic and the internal consistency of the mathematical procedures if appropriate. Suggestions for change or addition to material content or format which will enhance the completeness and utility of the GRC-developed procedures will be valued and appreciated.

SAG review and response within two weeks would be most appreciated.

Sincerely,

GENERAL RESEARCH CORPORATION

for 
Jack L. Posner
Associate Director
Management and Organization

JIP/lca

Enclosure (1)

DERIVATION OF NUMERICAL VALUES FOR SUBFACTORS

Section 3 of the draft report on Quantitative Procedures for Position Identity Definition discussed the GRC approach to position identity as a three step process using both decision logic and quantitative procedures. The process was shown schematically in Figure 3.1, Position Delineation Process, in that section of the report and is included here for ease of reference. Factors to be treated by decision logic tables were discussed with the SAG on 19 April 1979. The factors requiring quantitative treatment were submitted to the SAG for review on 16 May 1979. The SAG formally concurred with the completeness, definition, and relative importance of the array of factors and subfactors shown in Figure 1 on 30 May 1979. Please note that the hierarchical order of subfactors within the factor, Unusual Hours or Working Conditions, has been changed since the SAG review and this change should receive further consideration at this time. The remainder of this paper describes the methodology used to assign values to the subfactors requiring quantitative treatment in Step 1.

As a convenient method of identifying and subsequently referencing subfactors, all factors and subfactors were formed into a matrix. Figure 1, Quantitative Factors, displays the notation used.

Each column is numbered and headed by the factor name. Each subfactor has an assigned position number based on its ranking within the factor.

Subfactors are ordered top to bottom under the particular factor to which they apply. The subfactor within each factor most strongly indicating military incumbency are at the top.

As emphasized above, through underlining key words, it is imperative that the reader recognize at this point that subfactors are

STEP 1

STEP 2

ABBREVIATIONS:

OD - QUANTITATIVE DELINEATION
DLT - DECISION LOGIC TABLE

IDEAL IDENTITY

IDEAL IDENTITY
OFF WO EM CIV
+ INDIV ACCTS
= IDEAL ARMY MIX

APPLY MANAGERIAL CONSTRAINTS
ADD OR DELETE OFF, WO OR EM AND/OR DELETE CIVILIAN

PREFERRED ALTERNATIVE IDENTITY

D-7

FACTORS		SUBFACTORS					
1	2	3	4	5	6	7	
Security	Intelligence	Direct Military Authority and Discipline	Current Military Background/Training Required	Tradition and/or Custom	Unusual Hours or Working Conditions	Morale, Welfare and Recreation MWR Activities	
Secure Nuclear Weapons; Command Posts; Troop Installations (1.1)	Select/Prioritize Requirements; Allocate Resources (2.1)	Exercise 24 Hour Independent Responsibility (3.1)	Define Military Requirements (4.1)	Provide Required Military Presence (or the Effectiveness of the Position will be <u>Materially Compromised</u>) (5.1)	Life/Health Risk Exceeds Civil Standards (6.1)	Provide Required Military Leadership/ Supervision (or the Effectiveness of an MWR Activity will be <u>Materially Compromised</u>) (7.1)	
Supervise Prisoners (1.2)	Correlate/ Analyze (2.2)		Evaluate Doctrine and Tactics; (4.2)		Duty Tour Schedule/Length Exceeds Civil Standards for the Occupation (6.2)	Provide Military Leadership/ Supervision <u>Materially Contributing</u> to the Maintenance of Military Morale and Welfare (7.2)	
Perform Perimeter Patrol; Fire Watch (1.3)	Direct Operational Programs (2.3)	Maintain Military Morale Through Personnel Leadership (3.2)	Determine Operational Suitability (4.3)	Provide a Military Presence <u>Materially Contributing</u> to the Effective Discharge of Tasks, and/or the Maintenance of Military Esprit (5.2)	Frequent Relocation (6.3)		Supervise or Perform work in an MWR Activity (7.3)
Prevent Crime (1.4)	Devise Techniques; Perform Tasks (2.4)		Test Operational Capability (4.4)				
Control/Issue ID Documents (1.5)	Prepare Focused Summaries (2.5)	Supervise Work (3.3)	Train Troops (4.5)	Supervise or Perform work in a Military Organization (5.3)			
Control Traffic (1.6)	Control Dissemination (2.6)		Teach Doctrine and Tactics (4.6)				

Figure 1. Quantitative Factors

consistent with one another in terms of precedence only within their respective factors. It will be seen as we progress through this paper that the numerical values adduced for each subfactor effectively place them at given points on a continuum ranging from the highest to the lowest order of precedence for military incumbency within their respective factor only. Those points on the continuum applicable within a given factor do not necessarily correlate with selected points on the continuum applicable within any other factor. Rather, the prime consideration in selecting subfactors has been ease of definition. The principle and the resulting array are illustrated in Figure 2.

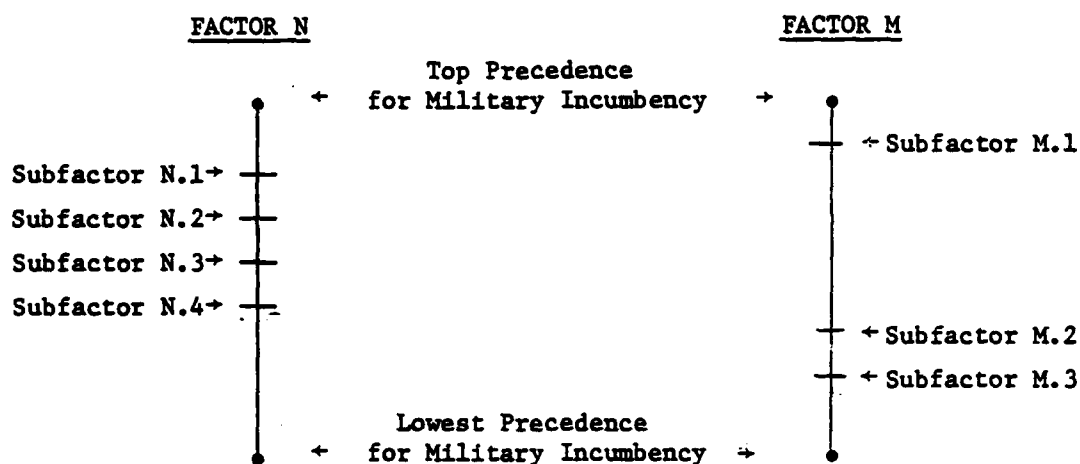


Figure 2. Subfactor Continua

The general context of subfactor definition has been designed such that the number of subfactors is limited to a maximum of six. The subfactor which heads the Security column is denoted subfactor 1.1; the subfactor which appears at the bottom of the Direct Military Authority and Discipline column is defined as subfactor 3.3; each of these designators is displayed in Figure 1.

Factors divide into two groups:**

1. Those which define conditions associated with positions:
 - Tradition and/or Custom
 - Unusual Hours or Working Conditions
 - Direct Military Authority and Discipline
2. Factors describing or relating to the kinds of work performed:
 - Security
 - Intelligence
 - Current Military Training/Background Required
 - Morale, Welfare and Recreation

Factors defining conditions associated with positions were considered independently of and prior to those factors describing or relating to the kind of work performed. All subfactors included within factors 3, 5, and 6 were formed into a matrix array shown as Table 1.

Table 1
MATRIX ARRAY OF SUBFACTORS
WITHIN FACTORS 3, 5, and 6

(3.1)	(5.1)	(6.1)
(3.2)	(5.2)	(6.2)
(3.3)	(5.3)	(6.3)
		(6.4)

** It may ultimately be useful and necessary to display these groupings separately when devising a practical scoring document for use by personnel/manpower technicians in implementing the GRC quantitative methodology.

Positions described as requiring either:

- Exercise of Direct Military Authority and Discipline on a 24 hour independent responsibility basis (subfactor 3.1); or
- Provision, because of Tradition and/or Custom, of a full-time military presence, without which the position would be materially compromised (subfactor 5.1);

were defined to require delineation as military positions. In practical terms, if, during position audit, a position delineator determined full-time applicability of either subfactor 3.1 or subfactor 5.1, the resulting point score "X" should be sufficient (i.e., the minimum value necessary) to justify military incumbency. This condition served as a departure point for determining point scores of all subfactors. It can be written as an equation.

$$(3.1) = (5.1) = X$$

Point scores for remaining subfactors within factors 3 and 5, and for all subfactors within factor 6 (the third of the "conditions" factors shown in Table 1) were determined by the GRC Project Team using objective logic; i.e., objective assessment of the relative value of each subfactor with respect to subfactors 3.1 and 5.1, and with respect to each other, in terms of their proper influence upon the determination of military incumbency. The objective judgment was expressed as the percentage of time it would be necessary to spend performing work under the conditions described by the subfactors to produce military incumbency.

The point values for all subfactors included in 3, 5, and 6 are shown in Table 2 in terms of the particular numerical value, "X," which delineates military incumbency.

Table 2
SUBFACTOR VALUES IN TERMS OF
THE PARTICULAR VALUE WHICH DELINEATES MILITARY
INCUMBENCY

(3.1)X	(5.1)X	(6.1)2X
(3.2) $\frac{X}{2}$	(5.2) $\frac{X}{2}$	(6.2) $\frac{4X}{3}$
(3.3) $\frac{X}{5}$	(5.3) $\frac{X}{5}$	(6.3)X
		(6.4) $\frac{X}{2}$

Factors describing or relating to the kinds of work performed were considered using the array of subfactors in Table 3.

Table 3
MATRIX ARRAY OF SUBFACTORS WITHIN
FACTORS 1, 2, 4, and 7

(1.1)	(2.1)	(4.1)	(7.1)
(1.2)	(2.2)	(4.2)	
(1.3)	(2.3)	(4.3)	(7.2)
(1.4)	(2.4)	(4.4)	
(1.5)	(2.5)	(4.5)	(7.3)
(1.6)	(2.6)	(4.6)	

Position assessments and surveys will reveal individual position requirements for incumbents to spend discrete amounts of their working time performing work tasks within the definition of one or more subfactors arrayed in Table 3. Objective judgment was applied by the GRC Project Team in determining the percentage of time it would be necessary to spend performing tasks within the work areas defined by each subfactor in order to designate a given position for military incumbency. These time judgments are arrayed in Table 4. The numerical values precedent to each matrix element indicate the minimum percentage of time which must be spent performing work defined by that subfactor to delineate military position incumbency. Subfactors which could not delineate military incumbency even if 100% of the work time was spent in their performance, do not appear in Table 4. Any value for a subfactor which, standing alone, does not delineate military incumbency would, if allowed to stand alone, delineate civilian incumbency.

Table 4
MATRIX OF SUBFACTORS WITHIN FACTORS 1, 2, 4, & 7*
INDICATING PERFORMANCE TIME REQUIREMENTS
TO DELINEATE MILITARY INCUMBENCY

40%(1.1)	30%(2.1)	40%(4.1)
	40%(2.2)	50%(4.2)
50%(1.2)	50%(2.3)	70%(4.3)
	60%(2.4)	80%(4.4)
60%(1.3)	70%(2.5)	90%(4.5)
	100%(2.6)	100%(4.6)
70%(1.4)		

* Table reflects no subfactors in factor 7 because none of them derived a sufficient numerical value to delineate military incumbency standing alone.

The project team established relationships between the five subfactors that cannot, standing alone, delineate military incumbency and those that can. Values were derived for these subfactors because while they did not, standing alone, delineate military incumbency they could contribute to such delineation in combination with other subfactors. The GRC Project Team used its objective judgment to establish each subfactor's relative importance in terms of the point score which determines military incumbency, "X."

A complete matrix of all subfactors appears in Table 5 in terms of the value ("X") which denotes military incumbency.

Table 5
VALUES OF INDIVIDUAL SUBFACTORS RELATIVE TO
THE POINT SCORE "X" WHICH DENOTES
A MILITARY POSITION

(1.1) = $\frac{5X}{2}$	(2.1) = $\frac{10X}{3}$	(3.1) = X	(4.1) = $\frac{5X}{2}$	(5.1) = X	(6.1) = 2X	(7.1) = $\frac{X}{2}$
(1.2) = 2X	(2.2) = $\frac{5X}{2}$		(4.2) = 2X		(6.2) = $\frac{4X}{3}$	
(1.3) = $\frac{5X}{3}$	(2.3) = 2X	(3.2) = $\frac{X}{2}$	(4.3) = $\frac{10X}{7}$	(5.2) = $\frac{X}{2}$	(6.3) = X	(7.2) = $\frac{X}{4}$
(1.4) = $\frac{10X}{7}$	(2.4) = $\frac{5X}{3}$		(4.4) = $\frac{5X}{4}$			
(1.5) = $\frac{X}{3}$	(2.5) = $\frac{10X}{7}$	(3.3) = $\frac{X}{5}$	(4.5) = $\frac{10X}{9}$	(5.3) = $\frac{X}{5}$	(6.4) = $\frac{X}{2}$	(7.3) = $\frac{X}{20}$
(1.6) = $\frac{X}{10}$	(2.6) = X		(4.6) = X			

Figure 3 presents point scores for each subfactor derived by setting "X" (i.e., the minimum value necessary to justify military incumbency) equal to 120 points. This value of "X" was chosen because it resulted in a greater number of even valued point scores than many other alternative values of "X" which were considered, thus helping simplify field application.

In Table 4 we have stated the condition that positions which require 30% or more of an incumbent's work time be spent in the subfactor "Correlate/Analyze" of the Intelligence factor will be delineated

FACTORS		SUBFACTORS					
1	2	3	4	5	6	7	
Security	Intelligence	Direct Military Authority and Discipline	Current Military Background/Training Required	Tradition and/or Custom	Unusual Hours or Working Conditions	Morale, Welfare and Recreation MWR Activities	
Secure Nuclear Weapons; Command Posts; Troop Installations (1.1)	Select/Prioritize Requirements; Allocate Resources (2.1)	Exercise 24 Hour Independent Responsibility (3.1)	Define Military Requirements (4.1)	Provide Required Military Presence (or the Effectiveness of the Position will be <u>Materially Compromised</u>) (5.1)	Life/Health Risk Exceeds Civil Standards (6.1)	Provide Required Military Leadership/ Supervision (or the Effectiveness of an MWR Activity will be <u>Materially Compromised</u>) (7.1)	
Supervise Prisoners (1.2)	Correlate/ Analyze (2.2)		Evaluate Doctrine and Tactics; (4.2)		160		
					Duty Tour Schedule/Length Exceeds Civil Standards for the Occupation (6.2)	Provide Military Leadership/ Supervision <u>Materially Contributing</u> to the Maintenance of Military Morale and Welfare (7.2)	
Perform Perimeter Patrol; Fire Watch (1.3)	Direct Operational Programs (2.3)	60	Determine Operational Suitability (4.3)	60	120		
Prevent Crime (1.4)	Devise Techniques; Perform Tasks (2.4)	Maintain Military Morale Through Personal Leadership (3.2)	Test Operational Capability (4.4)	Provide a Military Presence <u>Materially Contributing</u> to the Effective Discharge of Tasks, and/or the Maintenance of Military Espirit (5.2)	Frequent Relocation (6.3)		
Control/Issue ID Documents (1.5)	Prepare Focused Summaries (2.5)	24	133	24		6	Supervise or Perform work in an MWR Activity (7.3)
			Train Troops (4.5)		60		
Control Traffic (1.6)	Control Dissemination (2.6)	Supervise Work (3.3)	Teach Doctrine and Tactics (4.6)	Supervise or Perform work in a Military Organization (5.3)	Remote Location (6.4)		

Figure 3. Subfactor Quantitative Value.

military. However, when more than one subfactor applies, military incumbency can be delineated by varying amounts of time spent in various combinations of subfactors. Two examples of how combinations of subfactors can produce military incumbency are:

- . The first example describes a position which requires 30% of work time to be spent in performing Security tasks described by subfactor (1.1) - (Secure Nuclear Weapons; Command Posts; Troop Installations) and 20% to be spent in Intelligence activities in subfactor (2.1) - (Select/Prioritize Requirements; Allocate Resources). The computation is:

$$\begin{aligned} \text{(Position Delineation Score)} &= 30\%(1.1) + 20\%(2.1) \\ \text{From Figure 3} &= .3(300) + .2(400) \\ &= 90 + 80 \\ &= 170 - \text{Position delineated} \\ &\quad \text{as military} \end{aligned}$$

- . The second example describes a position that requires 50% of the time to be spent in Security on subfactor (1.5) - (Control/Issue ID Documents), 20% of the time in Intelligence on subfactor (2.4) - Devise Techniques; Perform Tasks), and 30% of the time in the factor Current Military Background/Training Required performing tasks in subfactor (4.1) - Define Military Requirements). This computation would be:

$$\begin{aligned} \text{(Position Delineation Score)} &= 50\%(1.5) + 20\%(2.4) + 30\%(4.1) \\ \text{From Figure 3} &= .5(40) + .2(200) + .3(300) \\ &= 20 + 40 + 90 \\ &= 150 - \text{Position delineated} \\ &\quad \text{as military} \end{aligned}$$

DEVELOPMENT OF FACTORS, SUBFACTORS AND THEIR HIERARCHICAL WEIGHTS

CHART 1

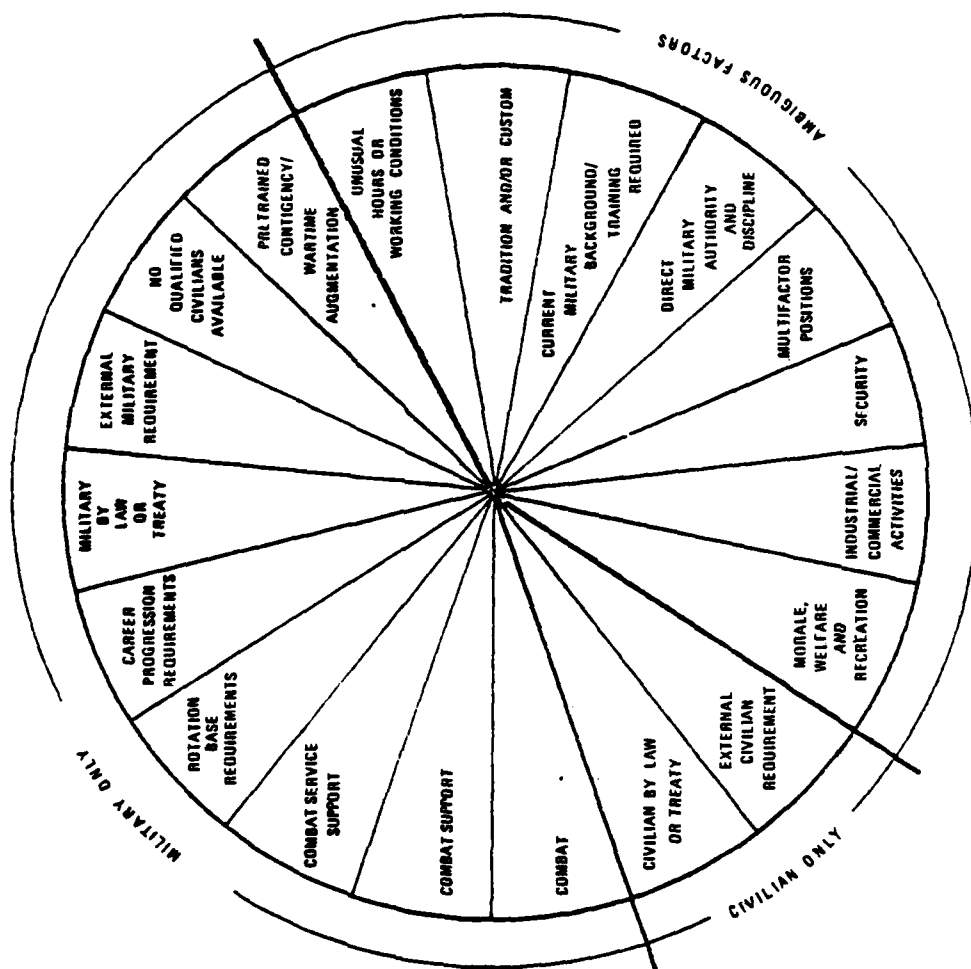
ALL OF THE FACTORS IMPORTANT TO DETERMINATION OF WHETHER A POSITION IS MILITARY OR CIVILIAN WERE DISCUSSED AT THE LAST SAG MEETING. THE FIRST FIGURE SHOWS THE FACTORS AND WHETHER THEY WERE INDICATORS OF A POSITIONS BEING MILITARY, CIVILIAN, OR WHETHER THEY WERE AMBIGUOUS. THIS DISCUSSION CARRIES FORWARD FROM THAT POINT AND ADDRESSES THE USE OF THOSE FACTORS IN AN ORDERED SEQUENCE.

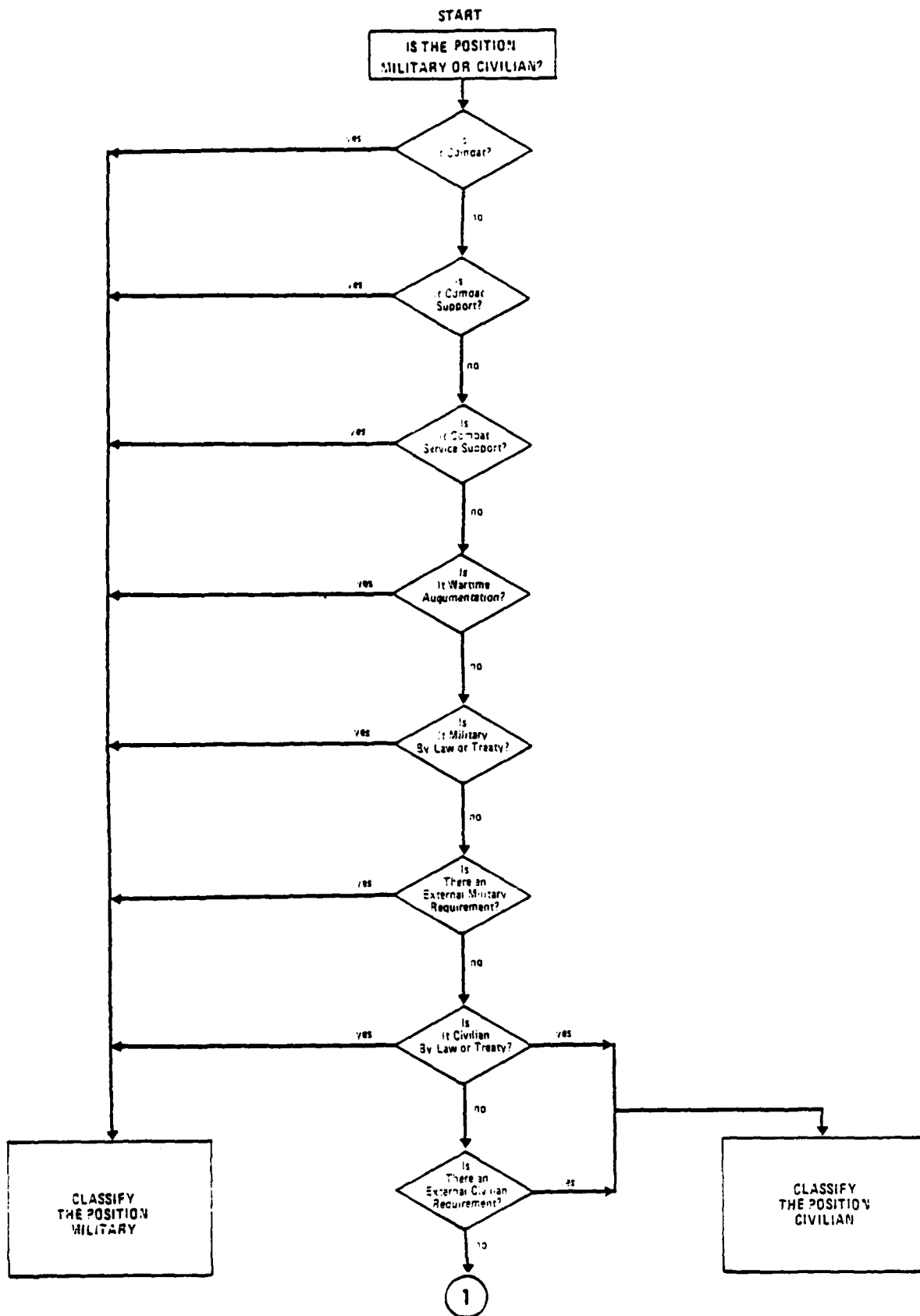
EIGHT OF THE FACTORS CAN IMMEDIATELY BE ADDRESSED IN THE FORM OF A LOGIC CHAIN.

CHART 2

THE SECOND FIGURE INDICATES HOW THESE EIGHT CAN FORM A LOGIC NETWORK. EACH FACTOR HAS A SINGULAR DEFINITION. POSITIONS WHICH ARE COMBAT POSITIONS ARE EASILY CATEGORIZED. THAT SAME CATEGORIZATION CAN BE APPLIED AS WELL TO EACH OF THE FACTORS. THE ORDER OF FACTOR APPLICATION GOES FROM THE STRONGEST POINTER TO MILITARY POSITIONS TO THE LESS COMPELLING. IN THE CHART, ONE BEGINS WITH ASKING THE QUESTION: "IS THE POSITION A COMBAT POSITION?" IF THE ANSWER IS YES, THEN BY DEFINITION IT IS IMMEDIATELY CLASSIFIED A MILITARY POSITION AND NO OTHER QUESTION NEEDS TO BE ASKED. IF THE ANSWER IS NO, THE NEXT QUESTION IS: "IS THE POSITION A COMBAT SUPPORT POSITION?". A NO ANSWER RESULTS IN ASKING THE NEXT QUESTION; "IS THE POSITION COMBAT SERVICE SUPPORT?". THE NO ANSWER CONTINUES THE CHAIN WITH; "IS THE POSITION WARTIME AUGMENTATION?" AND A NO ANSWER TO THAT ONE RESULTS IN ASKING WHETHER THE POSITION IS "MILITARY BY LAW OR TREATY?" OR IF NOT, WHETHER THE POSITION IS "AN EXTERNAL MILITARY REQUIREMENT?". IF THE RESPONSE CONTINUES TO BE A NO,

POSITION IDENTIFICATION FACTORS





THEN THE QUESTION IS ASKED; "IS THE POSITION CIVILIAN BY LAW OR TREATY?" AND IF IT IS NOT, THEN FINALLY, THE QUESTION IS ASKED; "IS THE POSITION CIVILIAN BECAUSE OF AN EXTERNAL CIVILIAN REQUIREMENT?" NO ANSWERS TO ALL OF THESE QUESTIONS ASKED IN THE SEQUENCE SHOWN INDICATES THAT A QUANTITATIVE EVALUATION WILL BE REQUIRED.

CHART 3

THERE ARE 6 AMBIGUOUS FACTORS INVOLVED IN QUANTITATIVE ANALYSIS. THEY ARE SHOWN IN THIS FIGURE. THEY ARE

SECURITY

MILITARY AUTHORITY AND DISCIPLINE

CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED

TRADITION AND OR CUSTOM

UNUSUAL HOURS OR WORKING CONDITIONS

MORALE, WELFARE, AND RECREATION

EACH OF THE FACTORS MAY HAVE CHARACTERISTICS OR SUBFACTORS INTERNAL TO ITSELF. FOR EXAMPLE, "SECURITY" INVOLVED CONSIDERATIONS OF WHETHER THERE IS A REQUIREMENT TO EXERCISE TROOP SECURITY, OR TO KEEP COMMAND POSTS SECURE. ADDITIONAL FUNCTIONS ARE SUPERVISION OF PRISONERS; PERIMETER PATROL; FIRE WATCH; DOCUMENTATION OF IDENTITY OR ACCESS; TRAFFIC CONTROL AND PERHAPS OTHERS. ALL OF THESE FUNCTIONS ARE PERFORMED UNDER THE GENERAL FACTOR OF "SECURITY".

CHART 4

THE NEXT CHART LISTS ALL OF THE EVALUATION SUBFACTORS WE HAVE IDENTIFIED TO DATE.

AMBIGUOUS EVALUATION FACTORS

SECURITY	MILITARY AUTHORITY & DISCIPLINE	CURRENT MILITARY BACKGROUND & TRAINING	TRADITION/ CUSTOM	UNUSUAL WORKING HOURS/ CONDITIONS	MORALE, WELFARE & RECREATION
----------	--	--	----------------------	--	---------------------------------------

EVALUATION SUBFACTORS

SECURITY	MILITARY AUTHORITY AND DISCIPLINE	CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED	TRADITION AND/OR CUSTOM	UNUSUAL WORKING HOURS OR CONDITIONS	MORALE, WELFARE AND RECREATION ACTIVITIES
TROOPS	COMMAND	RESEARCH AND DEVELOPMENT	POSITIONS MILITARY BY PRECEDENT	POSITIONS MILITARY BY DEFINITION	
COMMAND POSTS	UNIFORM CODE OF MILITARY JUSTICE	TRAINING	QUANTITATIVE EVALUATION OF TRADITION AND CUSTOM	RISK OF LIFE	
PRISONER SUPERVISION	SUPERVISION OF WORK	COMBAT SUPPORT TYPE FUNCTIONS		COMPARABILITY TO FEDERAL CIVILIAN STANDARDS	
PERIMETER PATROL					
FIRE WATCH					
DOCUMENT IDENTIFICATION					
TRAFFIC CONTROL					

PERFORMANCE OF SOME FUNCTIONS IS SUFFICIENT BY ITSELF TO CLASSIFY A POSITION AS "MILITARY". FOR INSTANCE, IF SECURITY IS TO BE MAINTAINED OVER TROOPS OR COMMAND POSTS, THE POSITION IS BY DEFINITION A MILITARY ONE. THUS THERE APPEAR TO BE SOME FACTORS WHICH CONTAIN PARTICULAR FUNCTIONS WHICH PERMIT CONTINUATION OF A LOGIC SEQUENCE. THOSE FUNCTIONS NOT WITHIN THE LOGIC SEQUENCE REMAIN TO BE ADDRESSED BY QUANTITATIVE ANALYSIS.

CHART 5

THIS FIGURE INDICATES THE LOGIC SEQUENCE INVOLVING THE AMBIGUOUS FACTORS. FIRST, IT MUST BE DETERMINED WHETHER THE POSITION IS A COMMERCIAL OR INDUSTRIAL POSITION. IF IT IS, AND DOES NOT INCLUDE ANY OF THE SIX AMBIGUOUS FACTORS, IT IS CLASSIFIED CIVILIAN. IF IT IS NOT COMMERCIAL OR INDUSTRIAL, AND IT INVOLVES AMBIGUOUS FACTORS IT UNDERGOES FURTHER EVALUATION.

THE FIGURE INDICATES THAT THE LOGIC SEQUENCE CONTINUES THROUGH THE FUNCTIONS. CERTAIN ELEMENTS OF SECURITY, MILITARY AUTHORITY AND DISCIPLINE, TRADITION AND CUSTOM AND UNUSUAL HOURS OR CONDITIONS CAN AUTOMATICALLY CLASSIFY A POSITION AS "MILITARY"

OTHERWISE, A SERIES OF QUANTITATIVE EVALUATIONS MUST BE MADE USING THE REMAINING SUBFACTORS INDICATED IN THE NEXT CHART.

CHART 6

IN THIS CHART, EACH FACTOR IS LISTED TOGETHER WITH ANY FUNCTION TREATED QUANTITATIVELY. THE ORDER OF IMPORTANCE OF THE FACTORS IN TERMS OF WHETHER THEY IMPEL TOWARD CLASSIFICATION OF A POSITION AS MILITARY, IS FROM LEFT TO RIGHT. THE SECURITY FACTOR APPEARS TO BE MOST IMPORTANT AND THE MORALE, WELFARE AND RECREATION FACTOR IS LEAST IMPORTANT IN CLASSIFYING A POSITION AS MILITARY.

THE POSITION OF EACH FUNCTION WITHIN EACH FACTOR IS ALSO LISTED IN ORDER OF IMPORTANCE. PRISONER SUPERVISION IS INDICATED AS BEING MORE IMPORTANT THAN PERIMETER PATROL, AND PERIMETER PATROL AS MORE IMPORTANT THAN FIRE WATCH. DOCUMENTATION IS MORE IMPORTANT THAN TRAFFIC CONTROL BUT LESS IMPORTANT THAN FIRE WATCH IN DETERMINING WHETHER A POSITION IS MILITARY.

THE HEIRARCHY WEIGHTS POSITION FACTORS AND FUNCTIONS IN TERMS OF MILITARY POSITION DETERMINATION SCORES. THE HIGHER THE POINT SCORE THE MORE LIKELY THE POSITION IS TO BE MILITARY.

THE VALUES SELECTED FOR SECURITY WERE ARBITRARY. IN PRACTICE TWO METHODS CAN BE USED TO ASSIGN WEIGHTS TO THE FUNCTIONS AND SUBFACTORS.

A GROUP OF EXPERTS COULD INDEPENDENTLY EVALUATE THE IMPORTANCE OF THE FACTORS. THE PROCESS IS REPEATED UNTIL CONSENSUS IS REACHED. THIS IS CALLED THE DELPHI TECHNIQUE AFTER THE ORACLE OF THE SAME NAME.

QUANTITATIVE EVALUATION FACTORS

SECURITY	MILITARY AUTHORITY AND DISCIPLINE	CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED	TRADITION AND/OR CUSTOMS	UNUSUAL WORKING HOURS OR CONDITIONS	MORALE, WELFARE, AND RECREATION ACTIVITIES
PRISONER SUPERVISION 30	SUPERVISION OF TECHNICAL WORK	TRAINING TROOPS		RISK OF LIFE	
PERIMETER PATROL 25		OVERSEEING MILITARY SYSTEMS DEVELOPMENT		COMPARABILITY TO FEDERAL CIVILIAN LABOR STANDARDS	
FIRE WATCH 20		COMBAT SUPPORT-TYPE FUNCTIONS			
DOCUMENT IDENTIFICATION AND ISSUE 15					
TRAFFIC CONTROL 10					

SUBFACTORS
D-26

CHART 6

AN EMPIRICAL ANALYSIS CAN BE PERFORMED ON EXISTING POSITIONS AND THE SIGNIFICANCE OF THE VARIOUS FACTORS AS POSITION CLASSIFIERS CAN BE DETERMINED USING MULTIPLE REGRESSION TECHNIQUES. SINCE THE FACTORS ARE AMBIGUOUS, SOME KIND OF SCALE IS NECESSARY TO INDICATE THE DEGREE TO WHICH THE FUNCTION APPLIES TO MILITARY AND CIVILIAN POSITIONS.

CHART 7

THE NEXT CHART INDICATES A METHODOLOGY USEFUL FOR DOING THIS. IT BEGINS WITH DEFINITION OF A SCALE WHICH RANGES FROM VERY IMPORTANT TO NOT AT ALL IMPORTANT. THE WORDS USED MAY BE "ALL", "MOST", "SOME", "RARELY", "NEVER". THE SCALE RANGES FROM ZERO TO 100 IN INCREMENTS OF 25. A SCALE WHICH IS DIVIDED INTO SEVEN INTERVALS COULD ALSO HAVE BEEN DEvised. AS THE JOB ANALYSIS PROGRESSES, AND THE ANSWERS TO INVOLVEMENT ARE PROVIDED, THE POINT SCORE IS DETERMINED BY MULTIPLYING THE POINT SCORE FOR EACH FUNCTION WITH THE POINT SCORE FOR THE DEGREE OF INVOLVEMENT. FOR EXAMPLE: IF PERIMETER PATROL IS VERY IMPORTANT IN TERMS OF THE SECURITY FACTOR, THEN THE 25 POINTS ASSIGNED TO PERIMETER PATROL AS A VALUE WOULD BE MULTIPLIED BY THE 100 POINTS ASSIGNED TO THE DEGREE OF INVOLVEMENT "VERY IMPORTANT" TO OBTAIN A TOTAL POINT SCORE FOR THAT FACTOR-FUNCTION COMBINATION OF 2,500 POINTS. MORE THAN ONE FUNCTION MAY BE SCORED FOR A FACTOR IF MORE THAN ONE FUNCTION IS PERFORMED. EACH FUNCTION PERFORMED MUST BE WEIGHTED IN TERMS OF THE FIVE DEGREES OF INTENSITY.

PERCENT OF TIME SPENT

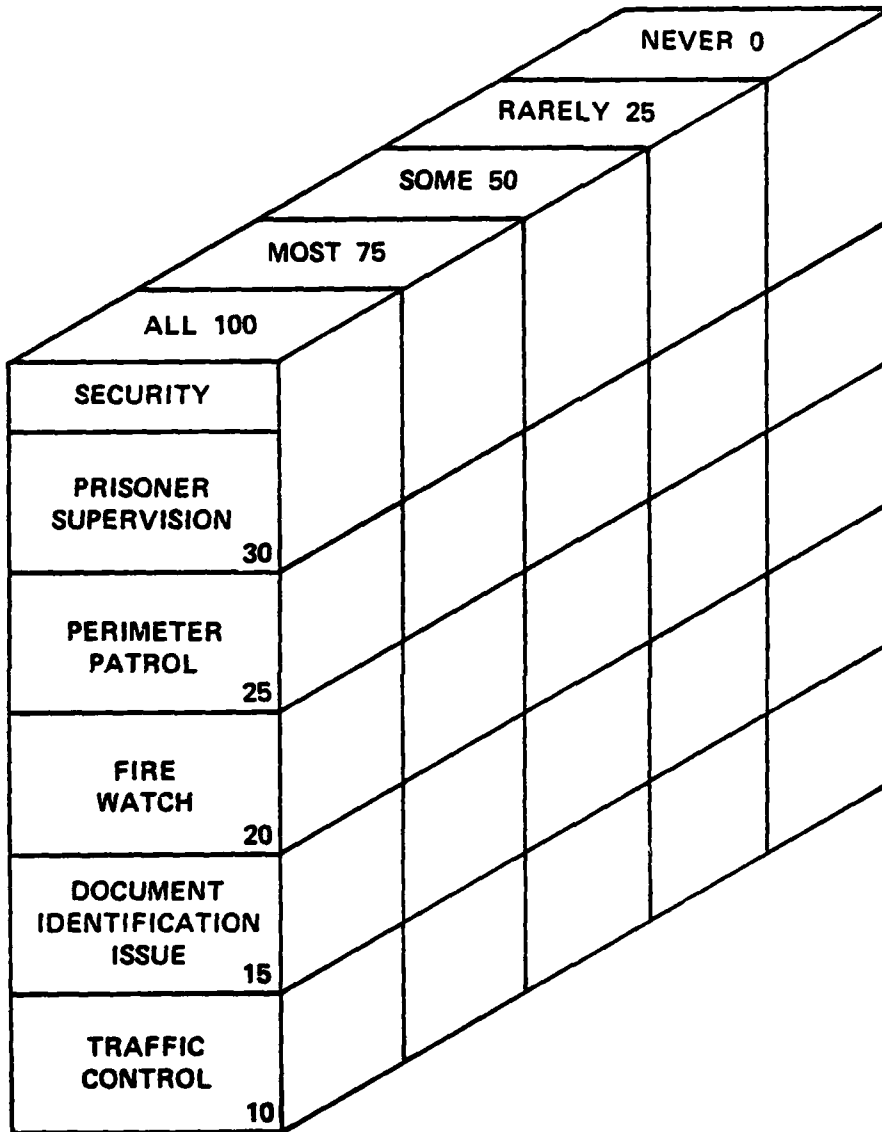


CHART 8

THE TOTALITY OF SUCH EVALUATIONS IS INDICATED IN THE NEXT CHART. EACH FACTOR-FUNCTION COMBINATION IS SCORED. THE THREE DIMENSIONAL ARRAY SHOWN IS A PICTORIAL REPRESENTATION OF THE METHOD PROPOSED. IT PROVIDES CONSIDERABLE FLEXIBILITY IN POSITION EVALUATION. NOT ALL OF THE FUNCTIONS AND FACTORS NEED TO BE PRESENT IN EACH POSITION ANALYZED. BUT IT IS NECESSARY TO DERIVE POINT SCORE FOR ALL THAT ARE.

THE RELATIVE IMPORTANCE OF THE FACTORS MAY CHANGE FROM POSITION TO POSITION. FOR ONE POSITION THE MILITARY AUTHORITY AND DISCIPLINE FACTOR MAY BE MOST IMPORTANT, FOLLOWED BY THE REQUIREMENT FOR CURRENT MILITARY BACKGROUND, AND TRADITION AND CUSTOM. THERE MAY BE NO SECURITY ASPECT AND NO SPECIAL HOURS OR CONDITIONS INVOLVED. IN ANY CASE, THE METHOD REQUIRES THAT THE TOTAL POINT SCORE FOR ALL OF THE FACTORS BE 100. THAT IS, IF FOUR FACTORS ARE INVOLVED EQUALLY EACH ONE IS WEIGHTED AT 25 POINTS. FUNCTIONS ARE WEIGHTED AT THEIR VALUES WITHIN THE FACTORS. WHEN THE TOTAL POINT SCORE FOR ALL FUNCTIONS WITHIN THE FACTOR ARE DETERMINED THEY ARE ADDED TOGETHER AND MULTIPLIED BY 25 POINTS FOR THIS EXAMPLE.

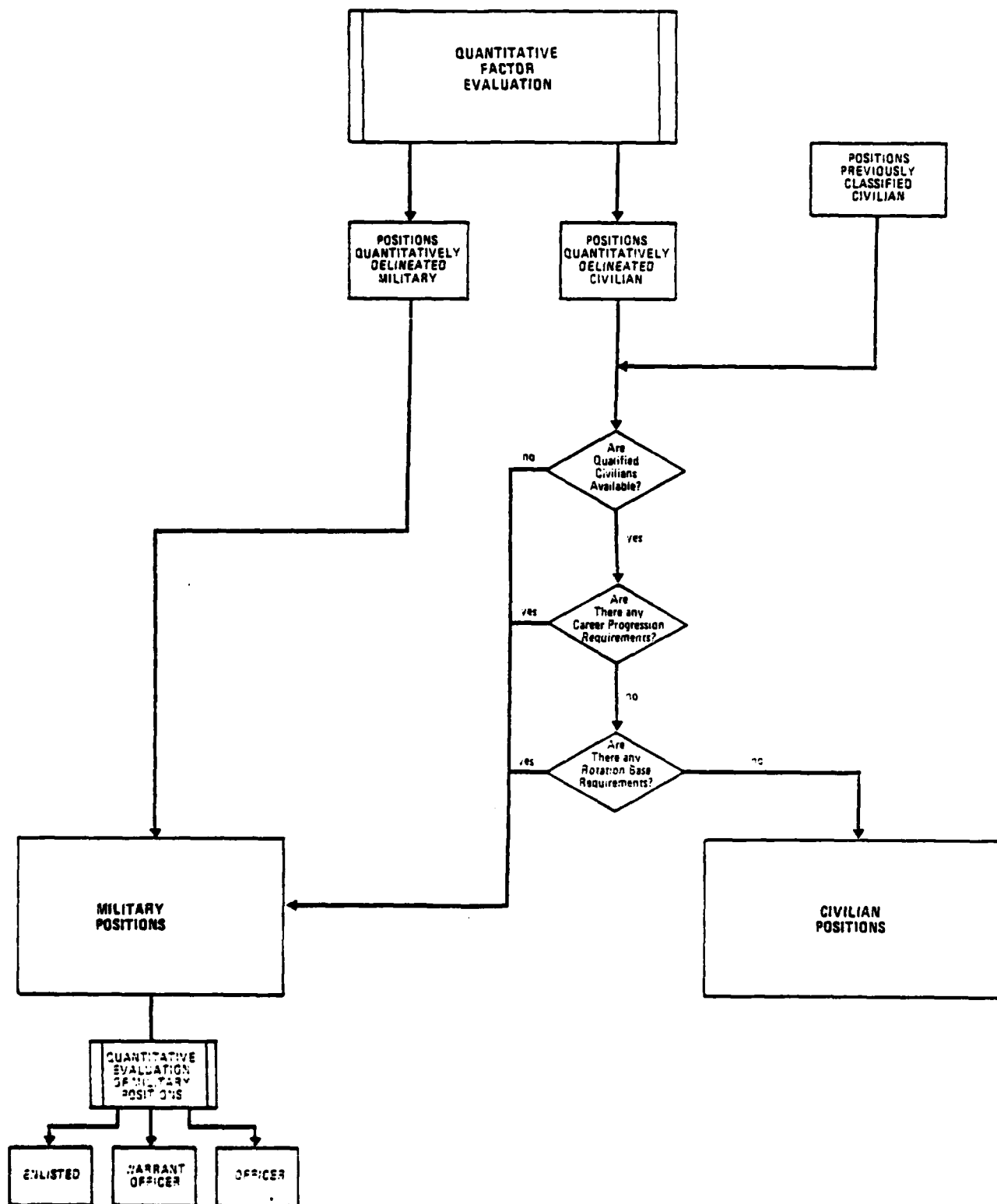
CHART 9

ONCE THE QUANTITATIVE EVALUATION IS PERFORMED ON THE AMBIGUOUS FACTORS ALL POSITIONS WILL BE DELINEATED MILITARY OR CIVILIAN. THE IDEAL IDENTITY OF EACH POSITION HAS BEEN ESTABLISHED IN THAT WAY. THERE ARE, HOWEVER, THREE OTHER CONDITIONS WHICH MUST BE MET BEFORE POSITIONS THAT IDEALLY SHOULD BE CIVILIAN CAN IN FACT BE CLASSIFIED THAT WAY.

3-DIMENSIONAL VIEW OF QUANTITATIVE
EVALUATION SCHEME

	PERCENT OF TIME SPENT									
	NEVER		NEVER		NEVER		NEVER		NEVER	
	RARELY		RARELY		RARELY		RARELY		RARELY	
	SOME		SOME		SOME		SOME		SOME	
	MOST		MOST		MOST		MOST		MOST	
ALL	ALL		ALL		ALL		ALL		ALL	
SECURITY	MILITARY AUTHORITY AND DISCIPLINE		CURRENT MILITARY BACKGROUND		TRADITION		IRIS/ CONDITIONS		MORALE, WELFARE, AND RECREATION	
PRISONER SUPERVISION	SUPERVISION of TECHNICAL WORK		OVERSEEING RESEARCH and DEVELOPMENT				RISK		COMPARABILITY to FEDERAL STANDARDS	
PERIMETER			TRAINING							
FIRE WATCH			COMBAT SERVICE SUPPORT TYPE FUNCTIONS							
DOCUMENT ID										
TRAFFIC										

Continued



THIS LAST FIGURE ILLUSTRATES THIS LOGIC CHAIN. IT MUST BE DETERMINED
FIRST, WHETHER ANY QUALIFIED CIVILIANS ARE AVAILABLE
SECONDLY WHETHER THERE ARE ANY MILITARY PROGRESSION REQUIREMENTS
THIRD WHETHER THERE ARE ANY ROTATION BASE REQUIREMENTS.

WHEN THE TOTALITY OF THIS FINAL LOGICAL SEQUENCE HAS BEEN CONSID-
ERED, A POSITION CAN FINALLY BE CLASSIFIED AS CIVILIAN OR MILITARY.

FURTHER PROCEDURES THEN CAN BE APPLIED TO MILITARY POSITIONS TO DET-
ERMINED WHETHER THEY SHOULD BE MILITARY OFFICERS, WARRANT OFFICERS, OR
ENLISTED POSITIONS.